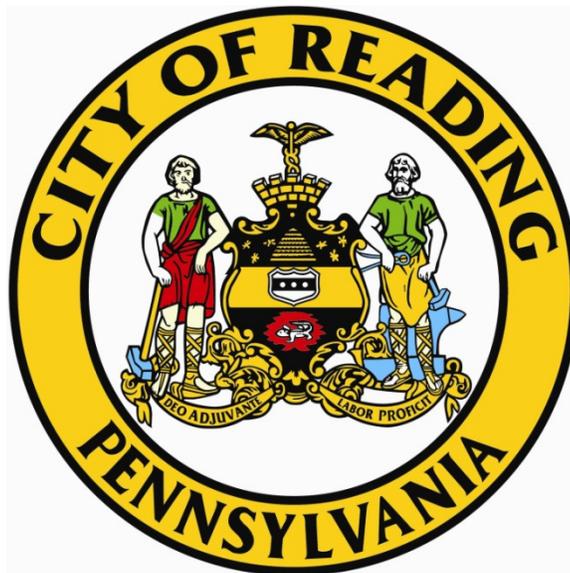


**Project Manual
Department of Public Works
City of Reading, Pennsylvania**

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project

City of Reading Project #2012-02



ISSUED FOR BID NOVEMBER 29, 2012

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

Section 000110 – TABLE OF CONTENTS

DIVISION 00 – PROCUREMENT AND CONTRACTUAL REQUIREMENTS

INTRODUCTORY INFORMATION

Section	000101	Project Title Page
Section	000110	Table of Contents
Section	000115	List of Drawings

PROCUREMENT REQUIREMENTS

Section	001100	Invitation for Bids
Section	002100	Instructions to Bidders
Section	004100	Bid Form
Appendix	A	Economic Opportunity Requirements
Section	004313	Bid Bond Form
Section	004315	Statement of Bidder's Qualifications and Financial Disclosure
Section	004336	Non-Collusion Affidavit
Section	004525	Statement Accepting Provisions Of Workers' Compensation Act
Section	004545	Affirmative Action and Nondiscrimination Statement

CONTRACTING REQUIREMENTS

Section	005200	Owner and Contractor Agreement Form
---------	--------	-------------------------------------

PROJECT FORMS

Section	006114	Performance Bond
Section	006115	Payment Bond
Section	006119	Waiver of Liens/Mechanics' Lien Waiver
Section	006201	Subcontractor List
Section	006202	Equipment and Material List
Section	C-620	Contractor's Application for Payment Form
Section	C-625	Certificate of Substantial Completion Form
Section	C-941	Change Order Form

CONDITIONS OF THE CONTRACT

Section	007200	General Conditions of the Contract for Construction
Section	008000	Supplementary Conditions
Section	008400	Pennsylvania Prevailing Wage Rates

TECHNICAL SPECIFICATIONS

DIVISION 01 – GENERAL REQUIREMENTS

Section	010100	Summary of Work
Section	010120	Measurements and Payments

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

Section	010400	Construction Coordination and Sequencing
Section	012020	Project Meetings
Section	013000	Submittals
Section	012100	Preconstruction Conference
Section	013100	Progress Schedule
Section	015000	Temporary Facilities
Section	015610	Noise Control
Section	017000	Contract Closeout
Section	017100	Final Cleaning

DIVISION 02 – THRU DIVISION 12 (NOT USED)

DIVISION 13 – SPECIAL CONSTRUCTION

Section	132000	Cleaning of Anaerobic Digesters
---------	--------	---------------------------------

DIVISION 14 (NOT USED)

DIVISION 15 – MECHANICAL

Section	153700	Process Piping
Section	150900	Supports, Anchors, Seals

DIVISION 16 THRU DIVISION 27 (NOT USED)

DIVISION 31 – THRU DIVISION 33 (NOT USED)

ATTACHMENTS

Attachment	A	Pennsylvania H2O City of Reading Grant Agreement
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END OF SECTION 00 0110

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

SECTION 00 0115 - LIST OF DRAWINGS

Drawing No.	Description
D-11447-60	Reference Drawing – Digester Site Plan
D-11447-62	Reference Drawing – Tank Structural Section
D-11447-65	Reference Drawing – Floating Cover Plan Section
D-11447-76	Reference Drawing – Digester Piping Plan
D-11447-80	Reference Drawing – Control Building Sludge and Gas Piping Sections

END OF SECTION 000115

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

SECTION 00 1100 – INVITATION FOR BIDS**CITY OF READING**

Contractors are invited to submit SEALED BIDS for the bidding of the **ANAEROBIC DIGESTER NO. 4 AND NO. 5 TANK CLEANING PROJECT** on behalf of the City of Reading, Pennsylvania (the “City”).

BIDS ARE INVITED ON A COMBINED LUMP SUM AND UNIT PRICE BASIS FOR THE FOLLOWING CONTRACT:

Contract 1: General Construction

Sealed bid proposals for construction of the **Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project** will be received by the City to the attention of City Purchasing Coordinator until 1:00 PM (local time) on January 10, 2013 (“Bid Closing”). Faxed bids will not be accepted.

Bids will be publicly opened and read aloud at the City’s Purchasing Office located at 815 Washington Street, Reading, PA 19601, at approximately 2:00 PM (local time) on January 10, 2013. No award of the contract will be made at the bid opening.

Bidders may obtain access to the Bidding Documents from T&M Associates, Inc. File Transfer Protocol (“FTP”) website on or after November 29, 2012. The username, password and instructions for obtaining the Bidding Documents can be obtained by submission of a request to Tammi Reinhart, Purchasing Coordinator, tammi.reinhart@readingpa.org, and a non-refundable payment to the City of \$25. The Bidding Documents will be available in PDF format. Checks shall be mailed to the City’s Purchasing Coordinator and made payable to the City of Reading. If addenda or clarifications are required, they will be issued through the FTP website with a courtesy email notification (however, each Bidder is responsible to check the FTP website for addenda or clarifications prior to submitting its Bid).

The Project consists of, but is not limited to, the cleaning of two secondary anaerobic digesters, identified as Tank Nos. 4 and 5. The tanks are each 75 feet in diameter and tank contents can be partially drained by the City. Complete contents removal and disposal will be the responsibility and cost of the Contractor, which includes temporary on-site sludge dewatering and provisions for odor control. Inclusive with this project will be close coordination with plant operational staff, and night-time operation of a temporary on-site sludge dewatering system, if so selected, is to be required.

Attention is called to the fact that Pennsylvania Prevailing Wages are to be paid on this Project, as determined by the Pennsylvania Department of Labor and Industry. Employees and applicants for employment shall not be discriminated against because of their race, age, color, religion, sex, national origin, or handicap.

The Bidding Documents set forth specific goals associated with the desired percentage of female and minority employee hours providing Work for the Project (and require a demonstration of a “good faith” effort to achieve such goals) and requires the Contractor to maintain/establish a bona-fide apprenticeship program registered with and approved by the Pennsylvania Apprenticeship and Training Council while performing the Project.

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

A mandatory Pre-bid Conference and site walk will be held at 9:00 AM. (local time) on December 12, 2012. Attendees for the Pre-bid Conference shall assemble at the City of Reading Fritz Island Wastewater Treatment Plant, Route 10 Morgantown Road, Reading, Pennsylvania. Bidders are required to visit the Project site prior to submitting Bids.

Each Bid must be accompanied by a Bid Security payment which can consist of a certified check, certified bank treasurer's check, bank cashier's check, or bid bond in the form included with the Bidding Documents. A satisfactory corporate surety shall provide security in an amount equal to 10% of the Total Base Bid Price together with the aggregate sum of all additive alternates. The surety shall name as payee or obligee the City of Reading, Pennsylvania.

The City shall have the right to accept or reject any or all Bids, or part thereof or items therein, for any reason whatsoever, waive any informalities and technicalities in bidding and act in its own best interest, reject a Bid not accompanied by any data required by the Bidding Documents, to reject a Bid which is in any way incomplete, irregular or otherwise not responsive to the requirements of the Bidding Documents, or to reject the Bid of a Bidder who is not qualified in accordance with the requirements of the Biding Documents.

Tammi Reinhart
Purchasing Coordinator

END OF SECTION 00 1100

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

SECTION 00 2100 - INSTRUCTIONS TO BIDDERSARTICLE 1 DEFINITIONS

- 1.1 Bidding Documents include, without limitation, the Drawings, Specifications, the Project Manual, Invitation to Bid, Instructions to Bidders, Bid Form (including the appendices thereto), Bid Bond, Payment Bond, Performance Bond, General and Supplementary Conditions, as modified by the Owner and bound herewith, and other Contract Documents. As used herein, the term “General and Supplementary Conditions” shall mean Section 007200 – General Conditions of the Construction Contract as such is modified by Section 008000 – Supplementary Conditions.
- 1.2 All definitions set forth in the General and Supplementary Conditions or Contract Documents, are applicable to the Bidding Documents. Any modifications to the Bidding Documents will be issued by written Addendum and posted to the Project’s FTP website.
- 1.3 “Addenda” are written and/or graphic instruments issued by the Owner or Engineer prior to the submission of the Bid which modify or interpret the Bidding Documents, by additions, deletions, clarification or correction.
- 1.4 A “Bid” is a complete and properly signed Bid Form to do the Work for the sums quoted therein, submitted in accordance with the Bidding Documents.
- 1.5 The “Total Base Bid Price” is the sum stated in the Bid for which the Bidder offers to perform the Work described in the Bidding Documents as the base, to which Work may be added or from which Work may be deleted for quoted costs stated in Alternate Bids.
- 1.6 An “Alternate Bid” (or “Alternate”) is an amount stated in the Bid to be added to or deducted from the amount of the Total Base Bid Price if the corresponding change in the Work, as described in the Bidding Documents, is accepted by the Owner.
- 1.7 A “Unit Price” is an amount stated on the Bid Form as a price per unit of measurement for a line item of materials and/or services as described in the Bidding Documents
- 1.8 The “Unit Price Summary” is the amount to be included in the Total Base Bid Price for a Unit Price item and is based on a fixed quantity of a specific item that is extended by the Bidder via a cost per unit provided by the Bidder.
- 1.9 A “Lump Sum Item Price” is an amount stated on the Bid Form as the total compensation for a line item of materials and/or services as described in the Bidding Documents.
- 1.10 The “Bidder” is a person or entity who submits a Bid.
- 1.11 The term “Owner” is the City of Reading, Pennsylvania. Contact information for Owner is:
Ralph Johnson
ralph.johnson@readingpa.org
City of Reading
815 Washington Street
Reading, PA 19601
(610) 655-6258

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

- 1.12 The term “Contract” and “Agreement” are used interchangeably.
- 1.13 The term “Engineer” as used in the Bidding Documents refers to T&M Associates, Inc. Contact information for Engineer is:
Charles E. Volk, PE
CVolk@tandmassociates.com
T&M Associates, Inc.
74 West Broad Street
Bethlehem PA 18018
(610) 625-2999
- 1.14 The term “Program Manager” as used in the Bidding Documents refers to Hill International, Inc., and its subcontractors. Contact information for Program Manager is:
Tony Vesay, PE
Tonyvesay@hillintl.com
Hill International, Inc.
1500 Market Street
Philadelphia, PA 19102-2100
(215) 557-3252
- 1.15 The term “Purchasing Coordinator” as used in the Bidding Documents refers to:
Tammi Reinhart
tammi.reinhart@readingpa.org
City of Reading
815 Washington Street
Reading, PA 19601
610-655-6207

ARTICLE 2 BIDDER’S REPRESENTATIONS

- 2.1 Each Bidder, by making its Bid, represents, warrants and covenants that:
- 2.1.1 It has read and understands the Bidding Documents and its Bid is made in accordance therewith.
- 2.1.2 It has visited the Project site, has familiarized itself with the local conditions under which the Work is to be performed such as locations, accessibility and general character of the site or building, the character and extent of existing Work within or adjacent to the site and any other Work being thereon at the time of submission of its Bid, and has correlated its observations with the requirements of the Contract Documents.
- 2.1.3 Its Bid is based upon the materials, systems and equipment required by the entire set of Bidding Documents, without exception. Each Bidder is expected to examine carefully each and every Bidding Document in order to determine the exact nature and scope of its Work.
- 2.1.4 It is prepared to accept the Project in whatever condition it is in on the date the Contract is executed, without representation or warranty of any kind, express or implied, by the Owner or by any other person or entity. Bidder has examined and familiarized itself with all existing conditions including, without limitation, all applicable Laws and Regulations that will affect the Work.

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

- 2.1.5 The prevailing minimum wages, as predetermined by the Pennsylvania Department of Labor and Industry shall be paid to workmen employed in the performance of these Contracts.
- 2.1.6 It has established, or will establish prior to performing Work on the Project, a bona fide apprenticeship program registered with and approved by the Pennsylvania Apprenticeship and Training Council in full compliance with the provisions of the Apprenticeship and Training Act effective as of June 1, 1961 (Act No. 304, P.L. 604; 43 P.S. Sec. 90.1, et seq.), the rules and regulations issued pursuant thereto, as amended from time to time.
- 2.1.7 Contractor has undertaken its best and good faith efforts to employ minority persons and females in its workforce of apprentices and journeymen.
- 2.1.8 It has visited the Project site and ascertained all conditions that will in any manner affect the Work. The Bidder has requested in writing any additional information from the Owner, Engineer or any other party which it deemed necessary in order to be fully informed so as to be able to submit its Bid. The Owner makes no representation as to the accuracy or completeness of the information, which is furnished, and the delivery thereof shall not be deemed to constitute such a representation. Bidder has taken all steps necessary to satisfy itself as to the conditions of the Project and to include in its Bid sufficient allocations for unknown or unidentified conditions. Any information furnished shall not be legally binding on the Owner unless issued by Addendum.
- 2.1.9 The Drawings have been prepared by the Engineer on the basis of surveys and inspections of the Project, and represent a reasonably accurate indication of the physical conditions at the Project. This, however, does not impose responsibility therefore on the Owner and does not relieve the Bidder of the necessity for fully informing itself as to existing physical conditions. The Owner makes no representation as to the accuracy or completeness of such Drawings, and the delivery or use of such Drawings shall not be deemed to constitute such a representation.
- 2.1.10 It acknowledges that it is each Bidder's responsibility to resolve disputes and coordinate with all Contractors and Subcontractors (whether or not the Owner is a party to a contract with such Contractors or Subcontractors) which have performed or are performing Work at the Project. Similarly, each successful Bidder is responsible to such Contractors and Subcontractors which have performed or are performing Work at the Project if the Bidder's actions or omissions cause any damage or delay to such Contractors or Subcontractors.
- 2.1.11 It is thoroughly familiar with all conditions affecting labor at the Project, including, but not limited to, unions, incentive pay, procurement, living and commuting conditions, and wage decisions applicable to the Work. The Bidder assumes responsibility to the Owner for all costs resulting from the failure to verify all conditions affecting labor. The Bidder is responsible for the maintenance and observance of sound labor practices by itself and its Subcontractors, and shall take all steps reasonably necessary to avoid labor disputes and the potential delay and disruption arising therefrom.
- 2.1.12 No extra charge will be allowed for ignorance of Contract requirements or Project site conditions. The interrelationship of all Bidding Documents must be carefully examined.
- 2.1.13 It acknowledges that the Owner may undertake or award other contracts while the Bidder is performing the Work. The successful Bidder will need to coordinate its Work with that of other

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

Contractors and/or Subcontractors on the Project. The Bidder acknowledges that it will need to coordinate its Work with that of the other Contractors and/or Subcontractors on the Project and has taken such obligation into account in submitting its Bid.

- 2.1.14 The submission of a Bid shall constitute conclusive evidence of compliance by such Bidder with above responsibility, and any claims relating to the established contract price, at any future time, for labor, equipment or materials required or for difficulties encountered which would or could have been foreseen had the Bidder so complied with its responsibility to ascertain all conditions, and review all Bidding Documents, will not be recognized by the Owner.
- 2.1.15 Each Bidder, to the extent necessary, shall examine the Bidding Documents for which Bids are to be received and reviewed by the Owner, as specified herewith, which documents shall be available for inspection as set forth herewith, so that it may be completely aware of all Work, materials and/or services which are to be provided by it to enable the completion of the Work in accordance with the Bidding Documents.

ARTICLE 3 BIDDING DOCUMENTS

3.1 GENERAL

- 3.1.1 Bidders shall use a complete set of Bidding Documents in preparing Bids. Neither the Owner nor the Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

3.2 INTERPRETATION OR CORRECTION OF BIDDING DOCUMENTS.

- 3.2.1 Bidders shall promptly notify the Engineer of any ambiguity, inconsistency or error, which they may discover upon examination of the Bidding Documents, or of the Project site and local conditions.
- 3.2.2 Bidders requiring clarification or interpretation of the Bidding Documents shall submit written requests to T&M Associates, Inc., c/o Charles Volk, 74 West Broad St, Bethlehem, PA 18018 (CVolk@tandmassociates.com). Such questions shall be submitted to the Engineer in writing by 2:00 PM on December 20, 2012, via email, and a copy of the questions shall be sent via email to the Purchasing Coordinator. No verbal questions from Bidders will be reviewed or accepted. Also, no questions shall be directed to the Owner. Any conflict, inconsistency, or discrepancy shall be reported at least seven (7) days prior to submission of the Bid.
- 3.2.3 Any interpretation, correction or change of the Bidding Documents will be made by Addendum. Interpretations, corrections or changes of the Bidding Documents made in any other manner will not be binding, and Bidders shall not rely upon such interpretations, corrections and changes.
- 3.2.4 It shall be the duty of each prospective Bidder to ascertain the impact that each Addenda, if any, may have on the Work and incorporate the same in any Unit Price or Lump Sum Price on the Bid Form prior to submitting its Bid.

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

3.3 SUBSTITUTIONS

- 3.3.1 No substitution will be considered prior to receipt of Bids unless written request for approval has been received by the Engineer at least fourteen (14) calendar days prior to the date for receipt of Bids. Each such request shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitute including drawings, cuts, performance test data, manufacturer's warranty and any other information necessary for an evaluation. A statement setting forth any changes in other materials, equipment or other Work that incorporation of the substitute would require shall be included. The burden of proof of the merit of the proposed substitute is upon the Bidder. The Engineer's decision of approval or disapproval of a proposed substitution shall be final and binding.
- 3.3.2 If the Engineer approves any proposed substitution prior to receipt of Bids, such approval will be set forth in an Addendum. Bidders shall not rely upon approvals made in any other manner.
- 3.3.3 The Bidder understands and agrees that if it did not elect to obtain approval during the bidding period as set forth above, the Owner has no obligation to review or consider submittals for substitutes after the Contract is awarded.
- 3.3.4 If approved substitutions require redesign or different quantity or arrangements of any part of the Project from that indicated in the Bidding Documents, all such additional labor, equipment, material and all new drawings and detailing required shall, with approval of the Engineer, be the responsibility of the Contractor making the substitution at its own expense including, without limitation, services rendered by the Engineer.

3.4 ADDENDA

- 3.4.1 Addenda will be uploaded to an FTP Site with all other Bidding Documents available to Bidders.
- 3.4.2 Copies of Addenda will be made available for inspection wherever Bidding Documents are on file for that purpose.
- 3.4.3 No Addenda will be issued later than three (3) calendar days prior to the date for receipt of Bids except an Addendum withdrawing the request for Bids or one which includes postponements of the date for receipt of Bids.
- 3.4.4 Each Bidder shall acknowledge receipt of all Addenda in its Bid by including a listing of the same on the Bid Form.
- 3.4.5 Failure of any Bidder to receive such Addenda shall not relieve such Bidder from any obligation under its Bid as submitted.

ARTICLE 4 BIDDING PROCEDURE

4.1 FORM AND STYLE OF BIDS

- 4.1.1 Three (3) originally signed, sealed and notarized Bids shall be submitted in the manner set forth in the Bidding Documents.

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

- 4.1.2 No Bid will be considered which is submitted other than on the Bid Form provided, or an exact copy thereof.
- 4.1.3 All blanks on the Bid Form, including, without limitation, for the Alternates and Unit Prices that may affect the Contract for which a Bid is submitted, shall be filled in by typewriter or manually in blue ink. Where so indicated by the makeup of the Bid Form, sums shall be expressed in both words and figures, and in case of discrepancy between the two, the amount written in words shall govern.
- 4.1.4 Any interlineation, alteration or erasure must be initialed by the signer of the Bid Form.
- 4.1.5 All requested Alternates shall be bid; if no change in the Total Base Bid Price is required, enter "No Change".
- 4.1.6 The Bidder shall sign and complete the Bid Form properly in accordance with the following.
1. If the Bidder is an individual the Bid Form shall be executed by him/her personally, his/her signature shall be witnessed, his/her business address shall be stated, and any trade name employed in the conduct of his/her business shall be stated.
 2. If the Bidder is a partnership, the Bid Form shall be executed in the name of the partnership by one or more of the authorized general partner(s), the signature(s) shall be witnessed and the business address of the partnership shall be stated.
 3. If the Bidder is a corporation, the Bid Form shall be executed in the name of and on behalf of the corporation: (1) by the President or a Vice President and attested to by the Secretary, Assistant Secretary, Treasurer or Assistant Treasurer and the corporate seal shall be affixed: or (2) by a duly authorized agent of the corporation whose authority to act, as of the date of the Bid, shall be established by proof, in form satisfactory to the Owner, submitted with the Bid Form, the business address of the corporation shall be stated, the state of the incorporation shall be stated, and, if the corporation is a foreign non-Pennsylvania corporation, whether the corporation is registered to do business in Pennsylvania shall be stated.
 4. If the Bid is submitted by a joint venture, the Bid Form must be executed in the joint venture name and by a person having authority to bind each joint venture entity, as provided above. The title of each signatory must appear under the signature and the official address of the joint venture must be shown below the signature. A separate Non-Collusion Affidavit, Statement of Bidder's Qualification and Financial Disclosure, Statement Accepting Provisions of Workers' Compensation Act and Affirmative Action and Nondiscrimination Statement must be executed on behalf of each joint venture entity, as provided above.
 5. Three (3) originally executed and completed versions of the following forms shall be included with the Bid in the following order and separated by tabbed partitions:
 - a. Bid Form (Section 004100)
 - b. Bid Bond Form (Section 004313)
 - c. Statement of Bidder's Qualification and Financial Disclosure (Section 004315)

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

- d. Non-Collusion Affidavit (Section 004336)
- e. Statement Accepting Provisions of Workers' Compensation Act (Section 004525)
- f. Affirmative Action and Nondiscrimination Statement (Section 004545)

4.1.7 Bids shall not contain any recapitulations of the Work to be performed. Bidder shall make no stipulation on the Bid Form nor qualify its Bid in any manner.

4.1.8 The Bid, Bid Security payment and all related documents shall be enclosed in a sealed opaque envelope and addressed clearly on the face of the envelope as follows:

(Upper Left Corner)
Bidder's Name
Address

(Center of Envelope)
Attn: Tammi Reinhart
Purchasing Coordinator
City of Reading
815 Washington Street
Reading, PA 19601

(Lower Left Corner)

ANAEROBIC DIGESTER NO. 4 AND NO. 5 TANK CLEANING PROJECT

Bid for: Contract No. 1: General Construction

Owner: City of Reading, Pennsylvania

If the Bid is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "SEALED BID ENCLOSED" on the face thereof. The Bidder assumes all responsibility for the timely delivery of any mailed Bids sent via Overnight Courier Services.

4.1.9 Bids shall be deposited and addressed to the attention of Tammi Reinhart, City of Reading Purchasing Coordinator, until the time and date stated in the Invitation to Bid, or any extension thereof made by Addendum. Bids received after the time and date for receipt of Bids will be returned unopened.

4.1.10 The Bidder shall assume full responsibility for timely delivery at the location designated for receipt of Bids.

4.1.11 Oral Bids are invalid and will not receive consideration.

4.2 BID SECURITY

4.2.1 Each Bid Form must be accompanied by Bid Bond in the form included herein, or a certified check, certified bank treasurer's check or bank cashier's check in the amount of ten percent (10%) of the total amount of the Total Base Bid Price plus all additive Alternatives to the order of the City of Reading, Pennsylvania. The proceeds thereof will be retained by the Owner as liquidated damages if the successful Bidder shall fail to execute the Contract, furnish the required Performance Bond and Payment Bond, properly execute the Waiver of Liens/Mechanics' Lien Waiver, and/or provide appropriate proof of insurance. The carriers from whom the Contractor

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

has purchased the required bonds must be listed in the most recent U.S. Treasury Department Circular and the amount of said bonds in question must not exceed the acceptable limit therein recommended for bonds. NOTE: a Bidder's personal check or non-certified corporate check is not acceptable as a form of Bid Security. Failure to accompany this Bid with the appropriate Bid Security will automatically disqualify Bidder.

- 4.2.2 The Owner shall retain the Bid Security of the lowest responsive, responsible Bidder. The Owner shall have the right to retain the Bid Security of the lowest responsive, responsible Bidder for one hundred twenty (120) days from the Bid Closing or until the furnishing of the Performance Bond and Payment Bond, the requisite insurance, the properly executed Waiver of Liens/Mechanics' Lien Waiver and the executed Contract for the applicable Work for which the Bid was submitted.
- 4.2.3 The Owner reserves the right to retain the security of the next two (2) lowest Bidders until the lowest Bidder enters into a Contract and furnishes the required Performance Bond and Payment Bond as well as appropriate proof of insurance (but in no event longer than one hundred twenty (120) days from the Bid Closing.
- 4.2.4 The Owner will return the Bid Security of all other Bidders after it has identified the three lowest responsive, responsible Bidders.
- 4.2.5 Bid Security shall be submitted with the understanding that the same shall guarantee that the Bidder, prior to execution of the Contract, will deliver to the Owner a Performance Bond and Payment Bond in the forms bound herewith, as required by the Contract Documents, and shall enter into the Contract, in the form bound herewith, and shall properly execute the Waiver of Liens/Mechanics' Lien Waiver and shall furnish evidence of insurance coverage in accordance with applicable provisions of the conditions bound herewith. In the event the Bidder shall fail to comply with any part of the foregoing, the Owner may declare the Bidder to be in default with respect to its Bid.
- 4.2.6 In the event any Bidder shall be declared to be in default with respect to its Bid, the proceeds thereof will be retained by Owner as liquidated damages.
- 4.3 MODIFICATION OR WITHDRAWAL OF BID
- 4.3.1 Bids may not be modified after submittal. Bids may be withdrawn after submittal, provided the Bidder makes its request to withdraw in writing and the request acknowledged by the City in writing prior to the time specified for Bid opening.
- 4.3.2 Negligence by Bidder in preparing its Bid confers no right of withdrawal or modification of its Bid after such Bid has been opened. No claims on account of mistakes or omissions in any Bid will be considered.
- 4.3.3 Notwithstanding the above, a Bidder may withdraw its Bid after such Bid has been opened in accordance with the causes set forth in the Pennsylvania Bid Withdrawal Act, Act No. 4 of 1974, 73 P.S. §1601 et seq. Strict compliance with said Bid Withdrawal Act is required to withdraw a Bid after Bid opening.
- 4.3.4 A Bid may not be modified, withdrawn or canceled by the Bidder for one hundred twenty (120) days after the opening of the bids and each Bidder so agrees in submitting its Bid, unless the

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

Award of the Contract is delayed due to required approvals of other governmental agencies, or sale of bonds, in which case, Bids shall be irrevocable for one hundred twenty (120).

- 4.3.5 Withdrawn Bids may be resubmitted up to the time designated for the receipt of Bids provided that they are then fully in conformance with these Instructions to Bidders.
- 4.4 PRE-BID CONFERENCE
- 4.4.1 A mandatory pre-Bid conference will be held as stated in the Invitation to Bid.

ARTICLE 5 CONSIDERATION OF BIDS

5.1 OPENING OF BIDS

- 5.1.1 The properly identified Bids received on time will be opened publicly and read aloud at 2:00 PM (local time) at 815 Washington Street on January 10, 2012.

5.2 REJECTION OF BIDS

- 5.2.1 Any Bid which contains omissions, additions or deductions not called for or permitted, alteration of forms, conditional or uninvited alternate bids, proposals or irregularities of any kind may be rejected by the Owner, and any Bid which is not based upon the Bidding Documents and any Bid which, while otherwise regular in form, shall not be accompanied by proper Bid Security may be rejected by the Owner, in its sole and absolute discretion.
- 5.2.2 The Bidder, in the completion of the Bid Form, shall insert Unit Prices and Lump Sum Prices where applicable. In the event any Unit Price, in the opinion of the Owner, is unreasonable or unbalanced, the Owner reserves the right to refuse any or all such Unit Prices and/or reject such Bid.
- 5.2.3 The Bid of any Bidder or Bidders who engage in collusive bidding shall be rejected. Any Bidder who submits Bid in such manner as to make it appear that the Bids submitted are not on a competitive basis from different parties shall be considered a collusive Bidder. The Owner may reject the Bid of any collusive Bidder at any time. However, nothing in this section shall prevent a Bidder from superseding a Bid by a subsequent Bid (provided both were delivered to the Purchasing Coordinator prior to Bid Closing) which expressly revokes the previous Bid.
- 5.2.4 The Owner may waive irregularities in a Bid, but is under no obligation to do so.
- 5.2.5 The Owner shall have the right to reject any or all Bids, or part thereof or items therein, for any reason whatsoever and to reject a Bid not accompanied by any data required by the Bidding Documents, to reject a Bid which is in any way incomplete, irregular or otherwise not responsive to the requirements of the Bidding Documents, or to reject the Bid of a Bidder who is not qualified in accordance with the requirements of the Bid. The Owner reserves the right to waive any informalities and technicalities in bidding and reserves the right to act in its own best interest. Without limiting the foregoing, the Owner shall have the right to reject a Bid if the Bidder has failed to comply with all applicable Laws or Regulations any previous project.

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

- 5.2.6 If for any reason whatsoever, the Owner rejects a Bidder's Bid, Bidder agrees that it will not seek to recover profits on Work not performed nor will it seek to recover its Bid preparation costs.
- 5.3 ACCEPTANCE OF BID (AWARD)
- 5.3.1 It is the intent of the Owner to award a Contract to the lowest responsive, responsible Bidder, provided the Bid has been submitted in accordance with the requirements of the Bidding Documents and does not exceed the funds available to the Owner for this Project. Determination of which Bid is the lowest responsive, responsible Bid shall be made by the Owner and calculated by taking into consideration the Total Base Bid Price, as identified in the Bid Form, plus any Alternates accepted. The Owner may also consider other factors which it feels have bearing on the Project including, without limitation, the Bidders failure to comply with all applicable Laws or Regulations on previous projects.
- 5.3.2 Upon identifying the lowest responsive, responsible Bidder, the Owner will issue a Notice of Intent to Award the Contract to such Bidder if the Owner elects to proceed with awarding the Project. After the Owner's receipt of all compliant submittals required by Section 6.2 of these Instructions to Bidder, the Owner will issue a Notice of Award and fully executed Contract to such Bidder upon approval from the Council to the City of Reading.
- 5.3.3 In the event of a dispute between a Bidder and the Owner regarding the Owner's determination of which Bidder is the lowest responsive, responsible Bidder, such contesting Bidder shall be responsible for any legal fees (e.g., fees of attorneys, paralegals and other legal professionals), professional fees, or other costs or expenses incurred by the Owner resulting from or arising out of the contesting Bidder's dispute of the Owner's determination of which Bidder is the lowest responsive Bidder. The contesting Bidder shall pay such legal fees, professional fees, or other costs or expenses within seven (7) days of receipt of the Owner's invoice. Furthermore, under no circumstances shall the Owner be responsible for any legal fees, professional fees, or other costs or expenses incurred by the contesting Bidder if the Owner decides not to award the Contract to such Bidder based upon the Owner's determination in its sole and absolute discretion that such contesting Bidder is not the lowest responsive, responsible Bidder.

ARTICLE 6 POST BID INFORMATION

- 6.1 PROOF OF BIDDER'S RESPONSIBILITY
- 6.1.1 The Owner may elect not to award the Contract to any person, firm or corporation that is in arrears, in litigation with the Owner or in default to the Owner or fails to adequately demonstrate its good faith efforts to employ minority or female apprentices and journeypersons consistent with the goals set forth in Appendix F.
- 6.2 SUBMITTALS
- 6.2.1 The Bidder shall, within seven (7) calendar days of Notice of Intent to Award the Contract, submit the following information to the Engineer:
1. The names and phone numbers of Subcontractors and/or Sub-Subcontractors, persons or entities (including those who are to furnish materials or equipment fabricated to a

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

- special design) proposed for the principal portions of the Work on the form included with the Bidding Documents as Section 006201.
2. The proprietary names of the suppliers of principal items or systems of materials and equipment proposed for the Work, as previously identified in the Bid Documents on the form included with the Bidding Documents as Section 006202.
 3. A separate and complete Verification Form required by the Public Works Employment Verification Act, Act No. 127, July 5, 2012 (formerly Senate Bill 637) for itself and each of the proposed Subcontractors (as such term is defined therein) acknowledging its responsibilities and its compliance with the Public Works Employment Verification Act as a precondition of the Owner's Award of the Contract. The Verification Form shall be obtained from the Secretary of the Pennsylvania Department of General Services and shall include a certification that the information is true and correct, subject to sanctions provided by law. The respective Verification Form shall be executed by a representative who has sufficient knowledge and authority to make the representations and certifications contained in the Verification Form.
 4. Evidence of its best and good faith efforts to employ minority persons and females in its workforce as set forth in Appendix F of the Bid Form.
- 6.2.2 The Bidder will be required to establish to the satisfaction of the Engineer and Owner the reliability and responsibility of the persons or entities proposed to furnish and perform the Work described in the Bidding Documents.
- 6.2.3 Prior to the Award of the Contract, the Engineer will notify the Bidder in writing if the Engineer or Owner, after due investigation, have reasonable objection to any such proposed person or entity proposed to furnish and perform the Work described in the Bidding Documents. If either the Engineer or Owner has reasonable objection to any such proposed person or entity, the Bidder shall submit an acceptable substitute person or entity for approval by the Engineer or Owner with no adjustment in the Bid price.
- 6.2.4 Persons and entities proposed by the Bidder and to whom the Engineer has made no reasonable objection under the provisions of Subparagraph 6.2.3 must be used on the Work for which they were proposed and shall not be changed except with the written consent of the Engineer.
- 6.2.5 The Bidder shall, within seven (7) calendar days of the Notice of Intent to Award the Contract, execute and submit the Waiver of Liens/Mechanics' Lien Waiver to the Owner in the form bound herewith. The Contractors shall not file the Waiver of Liens/Mechanics' Lien Waiver. If a Contractor files the Waiver of Liens/Mechanics' Lien Waiver, the Contractor shall be solely responsible for the cost and expense for re-filing the Waiver of Liens/Mechanics' Lien Waiver with the Prothonotary's office in the county where the Project is located in a form approved by the Owner in its sole and absolute discretion.

ARTICLE 7 BONDING

- 7.1.1 Within seven (7) calendar days of the Notice of Intent to Award the Contract, the successful Bidder shall furnish and pay for the Performance and Payment surety bonds in the form bound

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

herewith. The City of Reading, Pennsylvania shall be named as obligee under such surety bonds. Costs of such bonds shall be included in the Total Base Bid Price.

- 7.1.2 The stated principal amounts applicable to the contract bonds required shall be as follows:
1. Performance Bond – One hundred percent (100%) of the amount of the Total Base Bid Price, plus any Alternates selected by Owner.
 2. Payment Bond – One hundred percent (100%) of the amount of the Total Base Bid Price, plus any Alternates selected by Owner.
- 7.1.3 Such surety bonds shall have as surety thereon a corporation duly authorized to conduct business in Pennsylvania and which is in accordance with the Contract Documents.
- 7.1.4 The surety bonds shall be executed on behalf of the surety in such manner as shall legally bind the surety. In the event the execution on behalf of the surety is by an agent or agents, a proper power of attorney evidencing the authority of such agent or agents shall be attached to the surety bonds. Such power of attorney shall bear the same date as the surety bonds to which it is attached.

ARTICLE 8 FORM OF CONTRACT

8.1 FORM TO BE USED

- 8.1.1 The form of the Contract is included in the Bidding Documents.
- 8.1.2 The Contract shall be executed by or on behalf of the successful Bidder in the following manner:
1. If the successful Bidder is an individual, the form of the Contract shall be executed by it personally, its signature shall be witnessed and any trade name employed in the conduct of its business shall be stated.
 2. If the successful Bidder is a partnership, the form of the Contract shall be executed, in the name of the partnership; by one or more of the authorized general partners and the signature of the general partner(s) shall be witnessed.
 3. If the successful Bidder is a corporation, the form of the Contract shall be executed in the name of and on behalf of the corporation by: (1) the President or a Vice President and attested to by the Secretary, Assistant Secretary, Treasurer or Assistant Treasurer and the corporate seal shall be affixed; or (2) a duly authorized agent of the corporation whose authority to act, as of the date of the form of the Contract, shall be established by proof, satisfactory to the Owner attached to the form of the Contract.
 4. If the successful Bidder is a joint venture, the form Contract shall be executed in the joint venture name and by a person having authority to bind each joint venture entity, as provided above. The title of each signatory must appear under the signature and the official address of the joint venture must be shown below the signature.
- 8.1.3 The form of the Contract will be executed by the City of Reading, Pennsylvania, as Owner.

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

- 8.1.4 The Project Manual, as well as all other Bidding Documents, shall be incorporated in the Contract.

ARTICLE 9 DURATION OF CONTRACT

9.1 ESCALATION

- 9.1.1 The Bid must be guaranteed for the duration of this Project, and shall thereby have incorporated within it any or all escalation factors related to market conditions. Notwithstanding any other provision in the Contract Documents to the contrary, the Contract Price is intended to include all increases in cost, foreseen or unforeseen, including, without limitation, increases in costs arising from supply shortages, unusual delay in deliveries, increases in market prices for materials, labor, taxes and/or other causes beyond the Owner's control, all of which are to be borne solely by the Contractor supplying the materials and/or labor to the Project. All loss and/or damage arising from any of the Work performed under this Agreement through unforeseen or unusual obstructions, difficulties or delays which may be encountered in the prosecution of the same shall be borne solely by the applicable Contractor prosecuting the Work.

9.2 CONTRACT SCHEDULING

- 9.2.1 Time is of the essence in completing all Work under the Contract.
- 9.2.2 Contractor shall prepare its construction schedule in accordance with the Contract Documents or as otherwise directed by Engineer.
- 9.2.3 In preparing the Project schedule, the Engineer or its agents, shall have the right to assign start times, completion times and intermittent out-of-sequence adjustments in an effort to complete the Work within the time frame in the Project schedule. All sequencing, directions and dates indicated are approximate and are subject to change by Owner without additional compensation to the successful Bidder. The Bidder understands that the Contractor will strictly facilitate the scheduling process. Responsibility for coordination of the schedule and coordination of the Work rests solely with the Contractor. The Bidder, in making its Bid, acknowledges that absolutely no claims will be considered by the Owner for additional costs for coordination of the schedule or lack thereof.

9.3 TIME FOR COMMENCEMENT AND COMPLETION

- 9.3.1 The Work shall be completed within the schedule stipulated in the Bidding Documents. If it becomes necessary, in the opinion of the Owner, to postpone the Project or any option of the Work, then the Owner may authorize an extension of the Contract Time. An extension of the Contract Time shall not be cause for an increase in the Contract Price paid to the Contractor.
- 9.3.2 The Contractor shall begin work within five (5) days from the date of issuance of the Notice to Proceed by the Owner.

9.4 CONSTRUCTION TIME AND LIQUIDATED DAMAGES

The Contract between the Owner and Contractor will include a stipulation that the Work be completed in the time period specified in the Contract Documents. The Contract Documents

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

also includes a stipulation regarding liquidated damages in the General and Supplementary Conditions for delays in achieving Substantial and Final Completion in accordance with the Contract Times. This provision shall apply to all Milestones.

9.5 NO DAMAGES FOR DELAY

9.5.1 The Contractor shall not be entitled to additional costs or damages even if the Contractor's performance of Work on the Project is delayed without fault on the Contractor's part because of any event which is beyond the control of the Owner such as area-wide labor disputes, extraordinarily severe weather, acts of God or other force majeure, even if the Contractor would have otherwise been able to perform all of its obligations under the Contract but for such delay.

9.5.2 No extension of time shall be allowed for any suspension, delay or interruption to the extent: (1) that performance would have been so suspended, delayed or interrupted by any other cause, including, but not limited to, the fault or negligence of the Contractor; or (2) for which any adjustment is expressly provided for or excluded by any other provision of the Contract.

ARTICLE 10 TAXES

10.1 The Bids shall include, without limitation, all Federal, State (including, without limitation, Pennsylvania Sales Tax, to the extent applicable), County and Municipal taxes imposed by law and will be collected and paid for by the Contractor.

10.2 The Owner is exempt from payment of sales and compensating use taxes of the Commonwealth of Pennsylvania and of cities and counties thereof on all materials to be incorporated into the Work.

10.2.1 Owner will furnish the required certificates of tax exemption to Contractor for use in the purchase of supplies and materials to be incorporated into the Work.

10.2.2 Owner's exemption does not apply to construction tools, machinery, equipment, or other property purchased by or leased by Contractor, or to supplies or materials not incorporated into the Work.

ARTICLE 11 INSURANCE

11.1 Reference is made to the insurance requirements of the General and Supplementary Conditions bound herewith for provisions relating to insurance which shall be provided and maintained by the Contractor during the period of performance under the Contract.

11.2 The Contractor shall comply with applicable requirements for insurance before commencing performance of Work under the Contract, and, as proof of such compliance, shall deliver to the Owner within seven (7) calendar days of the Notice of Intent to Award the Contract certificates evidencing all insurance coverages and products in accordance with the terms set forth as the insurance requirements in the General and Supplementary Conditions.

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

ARTICLE 12 CONTRACT EXECUTION

- 12.1 The form of the Contract, Performance Bond, Payment Bond and Waiver of Liens/Mechanics' Lien Waiver will be delivered to the successful Bidder for execution contemporaneously with the Notice of Intent to Award the Contract. These, along with any additionally required documents, must be completed and executed in triplicate and returned to the Owner within seven (7) calendar days of the Notice of Intent to Award the Contract. Failure to comply with this instruction may be grounds for rejection of the Bid and retention of Bid Security as liquidated damages.

ARTICLE 13 ALTERNATES

- 13.1 The scope of Work of each Alternate is described in the Bidding Documents. Bids shall be submitted only on the basis of materials, products, or equipment specified in the Bidding Documents, or subsequently approved and included in Addenda pursuant to formal written requests for substitution.
- 13.2 Alternate Bids shall include, without limitation, the difference in price (addition or deduction) from the Total Base Bid Price, for substituting, omitting or changing materials or construction required by the Bidding Documents as part of the Total Base Bid Price construction and work.
- 13.3 The difference in price shall include, without limitation, all omissions, additions, and adjustments of all trades as may be necessary because of each change.
- 13.4 Each Contractor will be required to coordinate pertinent related Work and modify surrounding Work as required to complete the Project under each Alternate designated in the Contract. In the event that incorporation of a substituted item or assembly into the Work will require revisions or additions to the Work of other construction contracts, the Contractor electing to use such materials, products, or assembly shall include the cost of such revisions or additions to the Work in its Bid.
- 13.5 Each Contractor is required to submit an Alternate Bid for each alternate. If no change in the Total Base Bid Price is required, enter "No Change".

ARTICLE 14 UNIT PRICES

- 14.1 The Bid Form shall include all Unit Prices required by the Contract Documents. Each Unit Price filled in by the Bidder on the Bid Form shall represent full compensation per unit of measurement for materials or services that will be added to or deducted from the Contract Price by Change Order in the event the estimated quantities of Work stipulated in the Contract Documents are increased or decreased. Listing of more than one cost figure per Unit Price, or modification of the Bid Form to accommodate more than one cost figure per Unit Price, will render the Bid non-responsive and be cause for rejection of the Bid.
- 14.2 The Unit Prices shall include all costs required to perform the Work designated in the Unit Price, including, without limitation, all labor, material, equipment, insurance, taxes, overhead, profit, mark-ups, and all other General and Supplementary Condition items.
- 14.3 The Unit Prices shall strictly be used upon the written direction of the Engineer.

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

- 14.4 The Unit Prices shall be applied for both credits and deletions to the Work or for additions to the Work.
- 14.5 Prior to the Award of the Contract, the Owner reserves the full right to accept or reject any or all Unit Prices.
- 14.6 Each Contractor shall include in its Bid the designated Unit Price Summary amounts by multiplying the Unit Price by the applicable Estimated Quantity for each Unit Price line item on the Bid Form.

ARTICLE 15 ALLOWANCES

- 15.1 Each Contractor shall include in its Bid the designated Allowance amount as set forth in the Bid Form. The Allowance value shall be included in the Total Base Bid Price.
- 15.2 The Engineer will authorize in writing the expenditure of the Allowance amount.
- 15.3 The Contractor will not be allowed to spend any of the Allowance amount without the prior written authorization of the Engineer. Failure on the part of the Contractor to adhere to this provision will cause the Contractor to be not reimbursed for Work completed but not authorized.
- 15.4 The Allowance amount will be adjusted via Change Orders to reflect the amount actually expended. Any unexpended amounts of the Allowance amount will be returned in full to the Owner via Change Order.

ARTICLE 16 NON-COLLUSION AFFIDAVIT

- 16.1 Each Bidder shall complete and submit the Non-Collusion Affidavit bound herewith, in accordance with the following:
1. The Non-Collusion Affidavit is material to any contract awarded pursuant to this Bid. According to the Pennsylvania Anti-Bid-Rigging Act, 73 P.S. 1611 et seq., governmental agencies may require Non-Collusion Affidavits be submitted together with Bids.
 2. This Non-Collusion Affidavit must be executed by the member, officer or employee of the Bidder who makes the final decision on prices and the amount quoted in the Bid.
 3. Bid rigging and other efforts to restrain competition, and the making of false sworn statements in connection with the submission of Bids are unlawful and may be subject to criminal prosecution. The person who signs the Affidavit should examine it carefully before signing and assure himself or herself that each statement is true and accurate, making diligent inquiry, as necessary, of all other persons employed by or associated with the Bidder with responsibilities for the preparation, approval or submission of the Bid.
 4. In the case of a Bid submitted by a joint venture, each entity to the venture must be identified in the Bid Documents, and a Non-Collusion Affidavit must be submitted separately on behalf of each entity.

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

5. The term “complementary bid” as used in the Affidavit has the meaning commonly associated with that term in the bidding process, and includes the knowing submission of Bids higher than the Bid of another firm, any intentionally high or non-competitive Bid, and any other form of Bid submitted for the purpose of giving a false appearance of competition.
6. Failure to file an Affidavit in compliance with these instructions will result in disqualification of the Bid.

ARTICLE 17 GOVERNING LAWS AND REGULATIONS

- 17.1 Bids shall be submitted on the basis of full and total compliance with all federal, state, county, and local laws, regulations, statutes, and requirements pertaining to this Project. Bidders shall refer to statutory requirements set forth in the General and Supplementary Conditions.

ARTICLE 18 INABILITY TO CONSUMMATE FINANCING OR PROCEED

- 18.1 The Work to be performed for this Project is public work, financed by the Owner (a public body) by issuance of certain bonds, the issuance of which is subject to various qualifications and restrictions. The Owner, in good faith, intends to consummate such financing, but its ability to do so is subject to many factors beyond its control. It is therefore expressly understood and agreed to by each Bidder that, notwithstanding any other provision of the Contract Documents, the Owner may cancel any award made by it or cancel any Contract entered into with any Bidder without liability to the Bidder, at any time before the Bidder has been given written notice to proceed and has actually begun Work under the Contract, if financing satisfactory to the Owner cannot reasonably be consummated as contemplated or if any court of competent jurisdiction shall enjoin or otherwise prohibit the Owner from proceeding with the Work.

END OF SECTION 00 2100

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

SECTION 00 4100 - BID FORM

CONTRACT: General Construction

City of Reading, Pennsylvania
815 Washington Street
Reading, PA 19601

DATE: _____
BIDDER: _____

Attn: City of Reading, Purchasing Coordinator

Re: **ANAEROBIC DIGESTER NO. 4 AND NO. 5 TANK CLEANING PROJECT**

The following Bid is submitted in response to your Invitation to Bid.

This Bidder agrees to furnish the bonds required by the Bidding Documents and Contract Documents. Bid Security in the amount required by the Instructions to Bidders is enclosed. It is agreed that Bid Security shall be forfeited to the addressee if this Bidder does not, within seven (7) days after Notice of Intent to Award the Contract, execute a Contract for the construction proposed and provide the required bonds and insurance.

This Bidder has carefully examined the Bidding Documents, Contract Documents and Project Site, and certifies that it fully understands the requirements thereof. This Bidder agrees that, after the Owner's issuance of the Award of the Contract, Bidder will furnish and deliver materials, water, tools, equipment, light, heat, power, tests, transportation, secure permits and licenses, do and perform labor, superintendence and means of construction, pay fees and do incidental Work, and execute, construct and finish the aforesaid in an expeditious, substantial and workmanlike manner, in accordance with the Bidding Documents to the complete satisfaction and acceptance of the Owner for the price hereinafter stated.

As set forth in the General and Supplementary Conditions, Bidder submits this Bid with the understanding that the **ANAEROBIC DIGESTER NO. 4 AND NO. 5 TANK CLEANING PROJECT** Work encompassed therein shall be commenced within five (5) days of receipt of the Notice to Proceed and shall be completed in accordance with the Project schedule established, and shall be fully and finally completed in accordance with that schedule, and that time for the completion of the Work shall be considered as of the essence of this Contract, and that for the costs of extra inspections, salaries of contingent forces and other expenses entailed by the Owner by delay in completing the Contract, said Owner shall be entitled to the fixed sum of One Thousand Dollars (\$1,000.00) per calendar day until the Date of Substantial Completion as liquidated damages for each and every days' delay, not caused by the Owner unless otherwise provided in the General and Supplementary Conditions. This provision shall apply to each and every Milestone.

In addition to the foregoing and without limiting the foregoing, the Contractor and Contractor's Surety shall be jointly and severally liable for and shall pay the Owner the cost of expenses incurred by the Owner resulting from the Contractor's delay in submitting Shop Drawings, Product Data, Samples and similar submittals beyond the required number of days specified for such submittals as provided in the Contract Documents as liquidated damages, and not as a penalty, in the amount of Five Hundred Dollars (\$500.00) per calendar day, for each calendar day of delay until such submittal has been properly submitted as provided in the Contract Documents.

Bidder understands that the Award of the Contract will be preconditioned on its submittal to the Owner and the Engineer, a completed Verification Form required by the Public Works Employment Verification Act on behalf of itself and each of its Subcontractors of a Certificate of Insurance as outlined in the General and

Bidder's Handwritten Initials: _____

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

Supplementary Conditions, within seven (7) days after Notice of Intent to Award the Contract is received by this Contractor.

Bidder understands that the Award of the Contract will be preconditioned on its submittal to the Owner of evidence of its best and good faith efforts to employ minority persons and females in its workforce of apprentices and journeymen.

Bidder understands the following supplements to the Bid Form must be submitted concurrent with this bid submission.

- a. Bid Form (Section 004100)
- b. Bid Bond Form (Section 004313)
- c. Statement of Bidder's Qualification and Financial Disclosure (Section 004315)
- d. Non-Collusion Affidavit (Section 004336)
- e. Statement Accepting Provisions of Workers' Compensation Act (Section 004525)
- f. Affirmative Action and Nondiscrimination Statement (Section 004545)

Bidder understands the following supplement to the Bid Form must be submitted within seven (7) calendar days after receipt of the Notice of Intent to Award the Contract.

- b. Evidence of Best and Good Faith Efforts, as set forth in Appendix F
- b. Performance Bond (Section 006114)
- c. Payment Bond (Section 006115)
- d. Waiver of Liens/Mechanic's Lien Waiver (Section 006119)
- e. Proof of Insurance
- f. Subcontractor List (Section 006201)
- g. List of Equipment and Materials (Section 006202)
- h. Verification Form required by the Public Works Employment Verification Act on behalf of itself and each of its Subcontractors

This Bid is submitted with the definite understanding that Bids are valid for acceptance by the Owner and may not be withdrawn for a period of at least one hundred twenty (120) days after the actual date of the opening thereof unless the Award of the Contract is delayed due to required approvals of other governmental agencies, or sale of bonds, in which case, Bids shall be irrevocable for one hundred twenty (120) days.

It is understood that the Owner reserves the right to reject any or all Bids, or part thereof or items therein, and to waive technicalities required for the best interests of the Owner. Omission of any information may be sufficient cause for rejection of this Bid. It is further understood that competency and responsibility of Bidders will receive consideration before the Award of the Contract.

The undersigned declares that no Member of Council, Director of Department, Division Manager, deputy thereof or clerk therein, or other officer of the City of Reading, is directly or indirectly interested as principal, surety or otherwise in this bid or in the performance of the contract work or business to which it is related, or in any portion of the profits thereof.

The undersigned will not assign his Bid or any of his rights or interests thereunder without the written consent of the Owner.

Bidder's Handwritten Initials: _____

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

The Total Base Bid and each Unit Price, Unit Price Summary and Lump Sum Item Price, including all other required information, are submitted in the spaces provided. Handwritten initials on each page of this Bid Form identify each as a part of this Bid.

It is proposed to furnish and deliver all materials, tools, equipment, power, tests and transportation, perform all labor, superintendence, and all means of construction, and do all incidental work, and to execute, construct and finish in an expeditious and workman-like manner, in accordance with the plans and specifications, to the satisfaction and acceptance of the Department of Public Works of the City of Reading for the **Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project** for the total sum as herein bid:

Item No.	Description	Unit	Estimated Quantity	Unit Price	Unit Price Summary	Lump Sum Item Price
1	Bonds and Insurance	LS	N/A			
2	Mobilization & Demobilization	LS	N/A			
Anaerobic Digester No. 4 Tank Cleaning						
3	Residual Tank Contents Removal, Dewatering, Disposal & Cleaning	CY	3,450			
Anaerobic Digester No. 5 Tank Cleaning						
4	Residual Tank Contents Removal, Dewatering, Disposal & Cleaning	CY	3,450			
TOTAL						
TOTAL BASE BID PRICE (Equals the total sum of each Unit Price Summary plus the total sum of each Lump Sum Item Price)*						

* The determination of the lowest possible bidder shall be based on the Total Base Bid Price plus any Alternates selected by the Owner.

“LS” shall mean “Lump Sum”
“CY” shall mean “Cubic Yard”

ALTERNATES

The following listed alternate prices shall be filled in and submitted with the Bid Form. It is agreed that all Work to be performed under accepted alternate prices shall conform to the applicable Contract Documents, and shall include all Work in connection with or consequent to the alternate price Work to produce a complete installation.

Alternate prices shall be all inclusive of the cost of materials, Work, profit, supervision, administration and any and all other costs in connection therewith for Work in place and accepted or omitted as the case may be, and shall hold for the same period as the Bid.

Bidder’s Handwritten Initials: _____

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

The undersigned hereby proposes the following prices for Alternates, the selection of which shall be at the Owner's option:

ALTERNATE No. 1: REPLACE SUPERNATANT OVERFLOW PIPING

Description: Replace existing 8-inch cast iron supernatant overflow piping in both tanks with new 8-inch epoxy lined ductile iron pipe, in lieu of cleaning this pipe. This consists of approximately 32 linear feet (not guaranteed) of 8-inch pipe from the 8-inch tee fitting in the lower level of the control building up through the ground floor and back down to the to the 8-inch cross, including all bends, fittings, pipe restraint and anchoring.

_____ from the Base Bid if Alternate is selected by the Owner
[Add or Deduct] [Dollars]

ADDENDA

The Bidder acknowledges receipt of Addenda listed below which have been issued during the bidding period and agrees that said Addenda shall become part of the Contract (Bidder shall list numbers and dates of Addenda received).

No. _____	Date _____	No. _____	Date _____
No. _____	Date _____	No. _____	Date _____
No. _____	Date _____	No. _____	Date _____

IDENTIFICATION OF BIDDER

Company _____ Phone _____

Address _____

Please check the appropriate category:

_____ Sole Proprietorship	_____ Partnership
_____ Pennsylvania Corporation	_____ Foreign Corporation Registered in PA
Other: _____ (please identify)	

State of Organization: _____

Federal Identification Number: _____

Bidder's Handwritten Initials: _____

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

All correspondence to the Bidder related to this Bid shall be directed to:

Name: _____

Title: _____

Phone: _____

Address: _____

Email Address: _____ +

+Correspondence directed to the following email address shall be deemed received by the Bidder on the date the email was transmitted.

The undersigned hereby certifies that this Bid is genuine and not sham, collusive or fraudulent or made in the interest of or on behalf of any person, firm, or corporation not herein named; and that the undersigned has not, directly or indirectly, induced or solicited any Bidder to submit a sham Bid, or any other person, firm or corporation from bidding, and that the undersigned has not, in any manner, sought by collusion to secure for himself any advantage over any other Bidder.

SIGNATURES

Witness or Attest:

An Officer, if Bidder is corporation, if not corporation, any competent adult

Owner, Partner, or President/Vice President*

* Bidder to circle appropriate term

END OF SECTION 00 4100 – BID FORM

Bidder's Handwritten Initials: _____

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

APPENDIX A – ECONOMIC OPPORTUNITY REQUIREMENTS

By submission of its Bid, a responsible Bidder makes a legally binding commitment to exercise its best and good faith efforts through the contract term to provide meaningful and representative contracting opportunities for Minority (“MBE”), Women (“WBE”) and Disabled (“DSBE”) Owned Business Enterprises (collectively referred hereafter as M/W/DSBEs) and to employ an appropriately diverse workforce of tradespeople, including minority and female persons, performing Work on the Project.

The following are examples of best and good-faith efforts:

1. Bidder seeks assistance from the Greater Reading area building trades to conduct employment outreach and identify minority and female apprentices and journey persons.
2. Bidder adheres to a published policy of nondiscrimination in the hiring, retention and promotion of employees.
3. Bidder sponsors minority or female apprentices or otherwise demonstrates support of apprenticeship or training program(s) that target the employment of minority persons and women.
4. Bidder makes commitments to use M/W/DSBEs in its Bid for commercially acceptable subcontracted services and materials supply.
5. Bidder timely solicits through all reasonable and available means the interest of M/W/DSBEs who have the capability to perform Work for the Project. Such efforts include the use of advertising in minority focused publications and written mailings to certified M/W/DSBEs. The bidder must determine with certainty if the M/W/DSBEs are interested by taking appropriate follow up actions to such solicitations.
6. Bidder provides interested M/W/DSBEs, prior to the date of Bid submission, with adequate information about the plans, specifications and requirements of the Project in a timely manner to assist them in responding to a solicitation.
7. Bidder provides arm’s length business assistance to interested M/W/DSBEs which may include access or introduction to major manufacturers/suppliers, lines of credit and union halls.
8. Bidder negotiates in good faith with interested M/W/DSBEs. A Bidder using good-faith business judgment would consider a number of factors in negotiating with subcontractors, including M/S/DSBEs subcontractors, and would take a firm’s pricing and capabilities, as well as the objectives set forth herein, into consideration.

By submitting its Bid, Bidder agrees to exhaust its best good faith efforts to employ minority persons and females in its workforce of apprentices and journeyman. As evidence of its best and good-faith efforts, Bidder shall establish and maintain a current list of minority and female recruitment sources and provide written notification to these report sources, to community organizations and trade unions when Bidder has the employment opportunities available. The Bidder shall maintain a record of such organizations’ response(s). Bidder is obligated to exhaust its best good faith efforts to employee:

Minority apprentices – 20% of all hours worked by all apprentices
 Minority journeyman – 20% of all journey hours worked across all trades
 Female apprentices – 5% of all hours worked by all apprentices
 Female journeypersons – 5% of all hours worked across all trades

Bidder agrees that when a trades union has impeded Bidder’s efforts to meet its obligations hereunder, the Bidder will refer such information to the Owner.

END OF APPENDIX A

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

SECTION 00 4313 - BID BOND FORM

KNOW ALL MEN BY THESE PRESENTS that we, _____
(hereinafter called the "Principal"), and _____
a company authorized to transact business in the Commonwealth of Pennsylvania, and having its principal
office at _____
(hereinafter called the "Surety"), as Surety, are held and firmly bound unto the CITY OF READING,
PENNSYLVANIA (hereinafter called the "Obligee"), as Obligee, in the sum of:

lawful money of the United States of America, for payment of which we bind ourselves, and each of our
respective heirs, legal representatives, successors and assigns, jointly and severally, by these presents, on this
_____ day of _____, 20_____.

WHEREAS, said Principal is herewith submitting to the Obligee a Bid to perform General
Construction Work for the Obligee for Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project located in
the City of Reading, Berks County, Pennsylvania, pursuant to Drawings, Specifications, and other Contract
Documents incorporated into said Bid by reference; and it is a condition of the Obligee's receipt and
consideration of said Bid that such shall be accompanied by Bid Security to be held by the Obligee on terms
embodied herein.

THEREFORE, the condition of this obligation is that if said Principal shall furnish a Performance
Bond and a Payment Bond to the Obligee together with good and sufficient surety or sureties, as may be
required for the faithful performance and proper fulfillment of the Contract, in the form specified by the
Owner, and furnish required certificates of insurance upon the Obligee's delivery to the Principal of seven (7)
days notice of intention to accept the Principal's Bid and to make a formal Award of the Contract, and shall
enter into such Contract and shall furnish a waiver of liens, in all respects as required by the Contract
Documents, then this obligation shall be void and of no effect, but otherwise it shall remain in full force. In
the event of the failure to enter into such Contract, furnish such bonds, furnish such a waiver of liens, and
furnish such certificates of insurance within the time specified, the Principal and Surety shall pay to the
Obligee the difference between the amount of the Principal's accepted Bid and any higher amount for which
the Obligee may contract for the required work, as well as any advertising, architectural, engineering, legal and
other costs and expenses incurred by the Obligee by reason of the default; provided, however, that the
obligations of the Surety hereunder shall not exceed the amount of this Bid Security together with interest.

[Signatures on the following page]

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

IN WITNESS WHEREOF, the Principal and Surety, intending to be legally bound, have executed this Bid Bond the day and year aforementioned.

Individual Principal	
Witness:	By: _____ Name: _____ Trading and/or Doing Business as: _____
_____	_____

Partnership Principal	
Name of Partnership: _____	
Witness:	By: _____ Name: _____ Title: _____
_____	_____
Witness:	By: _____ Name: _____ Title: _____
_____	_____

Corporate Principal	
Name of Corporation: _____	
Attest:	By: _____ Name: _____ Title: _____*
_____	_____
[CORPORATE SEAL]	
* If the signatory is an authorized representative, attach proof evidencing authority to execute on behalf of the corporation	

Corporate Surety	
Name of Surety: _____	
Witness or Attest:	By: _____ Name: _____ Title: _____**
_____	_____
[CORPORATE SEAL]	
Attach an appropriate Power of Attorney evidencing the authority of the Attorney-in-Fact to act on behalf of the Surety.	

IN WITNESS WHEREOF, the Principal and Surety, intending to be legally bound, have executed this Bid Bond the day and year aforementioned.

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, _____, certify that I am the Corporate Secretary of the Corporation named as PRINCIPAL, in the within Bid Bond; that _____, who signed the said Bid Bond on behalf of the Principal, was then _____ of said Corporation; that I know the signee's signature, and the signature thereto is genuine; and that said Bid Bond is duly signed, sealed and attested for on behalf of said Corporation by authority of its governing body.

Signature: _____

Name: _____

Title: Corporate Secretary

Date: _____

(SEAL)

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

AGREEMENT OF SURETY

(Note: This Agreement shall be properly executed and must accompany the Certified Check, Bank Cashier's Check, Trust Company Treasurer's Check or Bid Bond, whichever is furnished as Bid Security.)

KNOW ALL MEN BY THESE PRESENTS, that we _____,
as Surety, a corporation existing under the laws of the State of _____, and
authorized to transact business in the Commonwealth of Pennsylvania, hereby agree to execute within the
time limit specified in the Contract Documents, the Contract Bonds in the forms and in the amounts required
for the faithful performance and proper fulfillment of the _____ Construction
Contract for Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project on behalf of:

(Name of Contractor)

hereinafter called the Bidder, provided that the above Contract be awarded to the Bidder within sixty (60)
days after the date of opening of Bids or otherwise as set forth in the Instructions to Bidders, and the Surety
further agrees that should the Surety, after notification of intent to make such award, omit or refuse to
execute the required bonds, then the Surety shall pay to the Obligee the difference between the amount of the
Principal's accepted Bid and any higher amount for which the Obligee may contract for the required work, as
well as any advertising, Engineer's, legal and other expenses incurred by the Obligee by reason of the default;
provided, however, that the obligations of the Surety hereunder shall not exceed the amount of this Bid
Security together with interest.

WITNESS

CORPORATE SURETY

DATE

SIGNATURE (SEAL)

ATTORNEY-IN-FACT

END OF SECTION 00 4313

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

SECTION 00 4315 - STATEMENT OF BIDDER'S QUALIFICATIONS AND FINANCIAL DISCLOSURE

All questions must be answered and the data given must be clear and comprehensive. This statement must be notarized. If necessary, questions may be answered on separate attached sheets. The Bidder may submit any additional information he desires.

1. Name of Bidder: _____
2. Permanent main office address: _____
3. When organized: _____
4. If a corporation, where incorporated: _____
5. Bonding Company _____
 Phone: _____
 Bonding Limit: \$ _____
6. Engineer References (3):
 - A. _____
 Phone: _____
 - B. _____
 Phone: _____
 - C. _____
 Phone: _____
7. Owner References (3)
 - A. _____
 Phone: _____
 - B. _____
 Phone: _____
 - C. _____
 Phone: _____

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

- 8. How many years has the Company been engaged in the contracting business under your present firm or trade name: _____
- 9. Contracts on hand: (Schedule these on an attached sheet, showing amount of each contract and the appropriate anticipated dates of completion.)
- 10. Amount (in Dollars) of Work completed last year \$ _____
- 11. Has the Company or any of its subsidiaries, affiliates or parent companies within the last ten (10) years ever failed to qualify as a responsible bidder or refused to enter into a contract after an award has been made? _____ If so, where and why?

- 12. Has the Company ever failed to complete any work awarded to it? _____ If so, where and why? _____
- 13. Has the Company ever defaulted on a contract? _____ If so, where and why? _____
- 14. Has the Company, or any of its Officers, ever been debarred from Public Work? _____ If so, where and why?

15. List of Projects, Construction Costs, Name, Address and Telephone Number of persons to contact for all projects completed in the past twelve months on an attached sheet.

16. List the Company's major equipment available for this contract.

17. Describe the Company's experience in construction work similar in importance to this project on an attached sheet.

18. Background and experience of the principal members of the Company, including the Officers.

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

19. Credit available: \$ _____

20. Give Bank reference: _____

21. (A) Has the Company ever been a party to or otherwise involved in any action or legal proceeding involving matters related to race, color, nationality or religion? _____. If so, give full details.

(B) Has the Company ever been accused of discrimination based upon race, color, nationality or religion in any action or legal proceeding including any proceeding related to any Federal Agency? _____. If so, give full details.

22. Name, address, phone number, and contact person at surety company who will provide bonding for this contract:

23. Name, address, phone number, and contact person at insurance company who will provide insurance coverage for this contract:

24. If requested by the Owner, will the Company provide, within five (5) days of such request, a copy of the Company's Financial Statement for the past two (2) calendar years and the Company's current balance sheet on Company letterhead? _____.

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

25. (A) Does the Company maintain an apprenticeship program registered with the Pennsylvania Apprenticeship and Training Council? _____.
- (B) If the answer to 27(A) was "NO", will the Company register an apprenticeship program with the Pennsylvania Apprenticeship and Training Council prior to performing Work on the Project if awarded the Contract? _____.
26. All prospective bidders are required to present proof of an acceptable disposal method approved by the Pennsylvania Department of Environmental Protection. The proof may consist of a copy of a State Solid Waste Disposal Permit issued to the prospective bidder by the Pennsylvania Department of Environmental Protection, or a letter of approval from the Pennsylvania Department of Environmental Protection for the use of a proposed or existing disposal facility which as a permit or is under review for a permit. Same to be in accordance with Section 7(a) application and permits, Pennsylvania Solid Waste Management – "Act 241."

The undersigned hereby authorizes any person, firm or corporation to furnish any information requested by the City of Reading in verification of the recitals comprising this Statement of Bidder's Qualifications.

DATED this _____ day of _____, 20 _____.

(NAME OF BIDDER)

BY: _____

TITLE: _____

END OF SECTION 00 4315

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

SECTION 00 4336 - NON-COLLUSION AFFIDAVIT

State of _____

ss

County of _____

_____, being first duly sworn, deposes and says that:

He/She is _____ of _____,
(Title) (Name of Bidder)

the Bidder that has submitted the attached Bid or Bids;

He/She is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid;

Such Bid is genuine and is not a collusive or sham Bid;

Neither the said Bidder nor any of its officers; partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly, with any other Bidder, firm or person to submit a collusive, complementary or sham Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from bidding in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication of conference with any other Bidder, firm or person to fix the price or prices in the attached Bid or of any other Bidder, or to fix any overhead, profit or cost element of the Bid price or the Bid price of any other Bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the City of Reading or any person interested in the proposed Contract;

The price or prices quoted in the attached Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affiant; and,

Neither the said Bidder nor any of its officers, partners, owners, agents or parties in interest, have any interest, present or prospective, that can be reasonably construed to result in a conflict of interest between them and the City of Reading, which the Bidder will be required to perform.

I state that _____ understands and acknowledges that the above
(Name of Bidder)

representations are material and important, and will be relied on by the City of Reading in awarding the contract(s) for which this Bid is submitted. I understand and my firm understands that any misstatement in this Non-Collusion Affidavit is and shall be treated as fraudulent concealment from the City of Reading of the true facts relating to the submission of its Bid for the Contract.

(Name and Position in Company)

SWORN TO AND SUBSCRIBED BEFORE ME THIS ____ DAY OF _____, 20__

Notary Public

My Commission Expires: _____

END OF SECTION 00 4336

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

SECTION 004525 - STATEMENT ACCEPTING PROVISIONS OF WORKERS' COMPENSATION ACT

STATE OF _____

ss.

COUNTY OF _____

The undersigned Bidder has accepted the provisions of the Workers' Compensation Act of Pennsylvania, with all supplements, and has insured liability thereunder in accordance with the terms thereof with the insurance company whose countersignature is attached hereto.

Bidder's Signature

Bidder's Insurer's Countersignature:

<p>For Individual</p> <p>By: _____</p> <p>Name: _____</p>
<p>For Corporation/Partnership/Joint Venture</p> <p>Name of Bidder:</p> <p>_____</p> <p>By: _____</p> <p>Name: _____</p> <p>Title: _____</p> <p>*By: _____</p> <p>Name: _____</p> <p>Title: _____</p> <p>*By: _____</p> <p>Name: _____</p> <p>Title: _____</p>

<p>Name of Bidders Insurer:</p> <p>_____</p> <p>By: _____</p> <p>Name: _____</p> <p>Title: <u>(Attorney-in-Fact)</u></p>
--

Attest: _____
[Seal]

*Attest: _____

*Attest: _____

* Additional signature blocks included for partnerships and joint ventures.

END OF SECTION 4525

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

SECTION 00 4545 - AFFIRMATIVE ACTION AND NONDISCRIMINATION STATEMENT

The following instructions for contractors regarding affirmative action are provided for information purposes. The successful bidder assumes the obligation to take whatever affirmative actions are necessary to assure equal employment opportunity in all aspects of employment, irrespective of race, color, creed, or national origin.

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION
TO ENSURE EQUAL EMPLOYMENT
OPPORTUNITY (EXECUTIVE ORDER 11246, AS AMENDED)**

The goals for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Goals for Minority Participation in Each Trade: 2.5% for all trades	Goals for Female Participation for Each Trade: 6.9% for All Trades
---	--

These goals are applicable to all the Contractor's construction work (whether or not it is federal or federally-assisted) performed in the covered area.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals established for the geographical area where the contract resulting from this solicitation is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

(3) THE CONTRACTOR SHALL PROVIDE WRITTEN NOTIFICATION TO THE DIRECTOR OF THE OFFICE OF FEDERAL CONTRACT COMPLIANCE PROGRAMS WITHIN 10 WORKING DAYS OF AWARD OF ANY CONSTRUCTION SUBCONTRACT IN EXCESS OF \$10,000 AT ANY TIER FOR CONSTRUCTION WORK UNDER THE CONTRACT RESULTING FROM THIS SOLICITATION. THE NOTIFICATION SHALL LIST THE NAME, ADDRESS AND TELEPHONE NUMBER OF THE SUBCONTRACTOR; EMPLOYER IDENTIFICATION NUMBER; ESTIMATED DOLLAR AMOUNT OF THE SUBCONTRACT; ESTIMATED STARTING AND COMPLETION DATES OF THE SUBCONTRACT; AND, THE GEOGRAPHICAL AREA IN WHICH THE CONTRACT IS TO BE PERFORMED.

OFFICE OF FEDERAL CONTRACT COMPLIANCE PROGRAMS
THE CURTIS CENTER SUITE 750 WEST
170 SOUTH INDEPENDENCE MALL WEST
PHILADELPHIA, PA 19106-3309

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

PHONE (215) 861-5764

BIDDER'S NONDISCRIMINATION STATEMENT

The undersigned hereby certifies that it shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, handicap, familial status, or national origin. The undersigned shall take affirmative action to ensure that applicants for employment are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, handicap, familial status, or national origin.

Bidder's Signature

<p>For Individual</p> <p>By: _____</p> <p>Name: _____</p>
<p>For Corporation/Partnership/Joint Venture</p> <p>Name of Bidder:</p> <p>_____</p> <p>By: _____</p> <p>Name: _____</p> <p>Title: _____</p> <p>*By: _____</p> <p>Name: _____</p> <p>Title: _____</p> <p>*By: _____</p> <p>Name: _____</p> <p>Title: _____</p>

Attest: _____
[Seal]

*Attest: _____

*Attest: _____

* Additional signature blocks included for partnerships and joint ventures.

END OF SECTION 00 4545

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

SECTION 00 5200 – OWNER AND CONTRACTOR AGREEMENT FORM

the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

ARTICLE 4 – CONTRACT TIMES

4.01 *Time of the Essence*

- A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 *Days to Achieve Substantial Completion and Final Payment*

- A. The Work will be substantially completed within 120 calendar days after the date when the Contract Times commence to run as provided in Paragraph 2.03 of the General Conditions, as modified by the Supplementary Conditions, and completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions, as modified by the Supplementary Conditions, within 150 calendar days after the date when the Contract Times commence to run.

4.03 *Liquidated Damages*

- A. Contractor and Contractor's Surety shall be jointly and severally liable for and shall pay the Owner the cost of expenses incurred by Owner resulting from Contractor's delay in completing the Work of the Contract within the Contract Time, as liquidated damages, and not as a penalty, in the amount of **One Thousand Dollars (\$1,000.00)** per calendar day, for each calendar day of delay until the Work is substantially complete in accordance with the Contract Documents, subject to adjustments of the Contract Time as provided in the Contract Documents. Liquidated damages shall apply to delays in achieving each and every Milestone.
- B. In addition to the foregoing and without limiting the foregoing, Contractor and Contractor's Surety shall be jointly and severally liable for and shall pay the Owner the cost of expenses incurred by Owner resulting from Contractor's delay in submitting Shop Drawings, Product Data, Samples and similar submittals beyond the required number of days specified for such submittals as provided in the Contract Documents as liquidated damages, and not as a penalty, in the amount of **Five Hundred Dollars (\$500.00)** per calendar day, for each calendar day of delay until such submittal has been properly submitted as provided in the Contract Documents. All submittals shall be received by the Engineer from Contractors by the earlier of the (i) date set forth in the Contract Documents, if applicable, or (ii) the date provided in the Schedule of Submittals accepted by the Engineer.
- C. In the event Contractor or Surety litigates the validity of the liquidated damages set forth herein or the assertion of liquidated damages, Contractor and Surety, jointly and severally, shall also be liable for legal fees, professional fees, costs, other expenses and/or damages incurred by Owner. Owner's right to receive liquidated damages shall be in addition to all other rights and remedies available to Owner at law or in equity.
- D. If Contractor is responsible, in the opinion of the Program Manager and the Engineer, for delay in the actual time of completion of any other contractor employed by the Owner in performance of any other portion of the Project, then Contractor shall be liable for and shall pay to the Owner all liquidated damages otherwise attributable to such other contractor, as well as any legal fees, professional fees, or other costs or expenses incurred by Owner.

ARTICLE 5 – CONTRACT PRICE

- 5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to Paragraphs 5.01.A, 5.01.B, and 5.01.C below:
- A. For all Unit Price Work, an amount equal to the sum of the unit price for each separately identified item of Unit Price Work as set forth in Contractor's Bid, attached hereto as Exhibit "A", times the actual quantity of that item.
 - B. For all Work other than Unit Price Work, a lump sum amount as set forth in the Contractor's Bid, attached hereto as Exhibit "A".
 - C. All specific cash allowances are included in the above price in accordance with Paragraph 11.02 of the General Conditions, as modified by the Supplementary Conditions.
 - D. Incorporation of any Alternates into the total contract price, will be at the discretion of the Owner and at the compensation amount (addition or deduction) as set forth in the Contractor's Bid, attached hereto as Exhibit "A".

ARTICLE 6 – PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

- A. Contractor shall submit Applications for Payment in accordance with Article 14 of the General Conditions, as modified by the Supplementary Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions, as modified by the Supplementary Conditions.

6.02 *Progress Payments; Retainage*

- A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the last Friday of each month during performance of the Work as provided in Paragraph 6.02.A.1 below. All such payments will be measured by the schedule of values established as provided in Paragraph 2.07.A of the General Conditions, as modified by the Supplementary Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no schedule of values, as provided in the General Requirements.
 - 1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Engineer or Program Manager may determine or Owner may withhold, including but not limited to liquidated damages, in accordance with Paragraph 14.02 of the General Conditions, as modified by the Supplementary Conditions.
 - a. 90 percent of Work completed (with the balance being retainage). If the Work has been 50 percent completed as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage withheld from subsequent payments (provided that

the Owner will not release the retainage already withheld until Substantial Completion;
and

- b. 0 percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).
- B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 100 percent of the Work completed, less such amounts as Engineer shall determine in accordance with Paragraph 14.02.B.5 of the General Conditions, as modified by the Supplementary Conditions and less 150 percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the tentative list of items to be completed or corrected attached to the certificate of Substantial Completion.

6.03 *Final Payment*

- A. Upon final completion and acceptance of the Work in accordance with Paragraph 14.07 of the General Conditions, as modified by the Supplementary Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 14.07.

ARTICLE 7 – INTEREST

- 7.01 All moneys not paid when due as provided in Article 14 of the General Conditions, as modified by the Supplementary Conditions shall bear interest at the rate of 2 percent per annum.

ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS

- 8.01 In order to induce Owner to enter into this Agreement, Contractor makes the following representations:
- A. Contractor has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.
 - B. Contractor has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 - C. Contractor is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
 - D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities), if any, that have been identified in Paragraph SC-4.02 of the Supplementary Conditions as containing reliable "technical data," and (2) reports and drawings of Hazardous Environmental Conditions, if any, at the Site that have been identified in Paragraph SC-4.06 of the Supplementary Conditions as containing reliable "technical data."
 - E. Contractor has considered the information known to Contractor; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the

EJCDC C-520 Agreement Between Owner and Contractor for Construction Contract (Stipulated Price)

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project

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Page 4 of 8

means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Contract Documents; and (3) Contractor's safety precautions and programs.

- F. Based on the information and observations referred to in Paragraph 8.01.E above, Contractor does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
- G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
- H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
- I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

ARTICLE 9 – CONTRACT DOCUMENTS

9.01 Contents

- A. The Contract Documents consist of the document enumerated in this Article 9. In the event of conflicts, inconsistencies, or discrepancies between and/or within the Contract Documents, interpretations will be based on the following order of priorities:
 - 1. This Agreement.
 - 2. Supplementary Conditions.
 - 3. General Conditions, as revised by Owner.
 - 4. Performance bond.
 - 5. Payment bond.
 - 6. Project Manual bearing the title "City of Reading Project #2012-02 Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project" consisting of the following:
 - a. All items defined in the Project Manual
 - b. All Reference Documents which are part of the Project Manual
 - c. All Attachments to the Project Manual
 - d. All Addenda to the Project Manual (the later addenda bearing greater precedence over earlier versions)
 - 7. All Technical Specifications and Drawings

- a. All Attachments as defined in the Project Manual Index
 - b. All Addenda to the Technical Specifications and Drawings (the later addenda bearing greater precedence over earlier versions)
8. Exhibits to this Agreement (enumerated as follows):
- a. Exhibit A – Contractor's Bid Form
9. The following, which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
- a. Notice to Proceed.
 - b. Work Change Directives.
 - c. Change Orders.
10. Contractor's Subcontractor List
11. Contractor's Equipment and Materials List
- B. The documents listed in Paragraph 9.01.A are expressly incorporated to this Agreement.
- C. There are no Contract Documents other than those listed above in this Article 9.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in Paragraph 3.04 of the General Conditions, as modified by the Supplementary Conditions.

ARTICLE 10 – MISCELLANEOUS

10.01 Terms

- A. Terms used in this Agreement will have the meanings stated in the General Conditions, as modified by the Supplementary Conditions.

10.02 Assignment of Contract

- A. No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 Successors and Assigns

- A. Owner and Contractor each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.04 Severability

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

10.05 Contractor's Certifications

Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.05:

1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;
2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

10.06 Other Provisions

- A. The grant requirements incorporated in the Owner's Pennsylvania H2O grant agreement apply to this Project.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement. Counterparts have been delivered to Owner and Contractor. All portions of the Contract Documents have been signed or have been identified by Owner and Contractor or on their behalf.

This Agreement will be effective as of the date of the Owner's Notice of Award of the Project to the Contractor (which is the Effective Date of the Agreement).

OWNER:

CONTRACTOR:

City of Reading

By: _____

By: _____

Title: _____

Title: _____

[SEAL]

[CORPORATE SEAL]

Attest: _____

Attest: _____

Title: _____

Title: _____

Address for giving notices:

Address for giving notices:

815 Washington Street

Reading, PA 19601

License No.: _____
(Where applicable)

Agent for service of process:

(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

SECTION 00 6114 - PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS that we, _____
as Principal (the "Principal"), and _____
, a company organized and existing under the laws of the _____
, having its principal office at _____
and authorized to do business in the Commonwealth of Pennsylvania, as Surety (the "Surety"), are held and
firmly bound, jointly and severally, unto the CITY OF READING, PENNSYLVANIA, as Obligee (the
"Obligee"), as hereinafter set forth in the full and just sum of:

lawful money of the United States of America, for the payment of which sum we bind ourselves, our heirs,
executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WITNESSETH THAT:

WHEREAS, the Principal heretofore has submitted to the Obligee a certain Bid, dated
_____, 20____ (the "Bid"), to perform General Construction Work for the
Obligee, in connection with the **ANAEROBIC DIGESTER NO. 4 AND NO. 5 TANK CLEANING
PROJECT** located in the City of Reading, Berks County, Pennsylvania pursuant to Drawings, Specifications and
other related documents, constituting the Bidding Documents, which are incorporated into the Bid by reference
(the "Contract Documents"), as prepared by T&M Associates; and

WHEREAS, the Obligee is a "Contracting Body" under provisions of Act No. 385 of the General
Assembly of the Commonwealth of Pennsylvania, approved by the Governor on December 20, 1967, known and
cited as the "Public Works Contractors' Bond Law of 1967" (the "Act"); and

WHEREAS, the Act, in Section 3(a), requires that, before an award shall be made to the Principal by the
Obligee in accordance with the Bid, the Principal shall furnish this Performance Bond to the Obligee, with this
Performance Bond to become binding upon the Award of the Contract to the Principal by the Obligee in
accordance with the Bid; and

WHEREAS, it also is a condition of the Contract Documents that this Performance Bond shall be
furnished by the Principal to the Obligee; and

WHEREAS, under the Contract Documents, it is provided, *inter alia*, that if the Principal shall furnish
this Performance Bond and the Payment Bond to the Obligee, and if the Obligee shall make an award to the
Principal in accordance with the Bid, then the Principal and the Obligee shall enter into an agreement with
respect to performance of such Work (the "Agreement"), the form of which Agreement is set forth in the
Contract Documents.

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

NOW, THEREFORE, the terms and conditions of this Performance Bond are and shall be that if: (a) the Principal well, truly and faithfully shall comply with and shall perform the Work in accordance with the Contract Documents, at the time and in the manner provided in the Contract Documents, and if the Principal shall satisfy all claims and demands incurred in or related to the performance of the Contract Documents by the Principal or growing out of the performance of the Contract Documents by the Principal, and if the Principal shall indemnify completely and shall save harmless the Obligee and all of its officers, agents and employees from any and all costs and damages, including, but not limited to, liquidated damages which the Obligee and all of its officers, agents and employees may sustain or suffer by reason of the failure of the Principal to do so, and if the Principal shall reimburse completely and shall pay to the Obligee any and all costs and expenses which the Obligee and all of its officers, agents and employees may incur by reason of any such default or failure of the Principal, including, but not limited to, legal fees (e.g., fees of attorneys, paralegals and other legal professionals) and professional fees resulting from such default or failure of the Principal in accordance with the Contract Documents, and (b) if the Principal shall remedy, without cost to the Obligee, all defects which may develop during the period of one (1) year from the date of final completion by the Principal and acceptance of the Obligee of the Work to be performed under the Contract Documents, which defects, in the sole judgment of the Obligee or its legal successors in interest, shall be caused by or shall result from defective or inferior materials or workmanship, then this Performance Bond shall be void; otherwise, this Performance Bond shall be and shall remain in force and effect and all claims, demands, costs, expenses and damages, including, but not limited to, legal fees and professional fees resulting from the default or failure of Principal in accordance with the Contract Documents, shall be payable by Principal and Surety upon demand of Obligee; provided, however, that the obligations of the Surety hereunder shall not exceed the amount of this Performance Bond, as this Performance Bond is amended, whether automatically or in writing, in accordance with the terms hereof.

This Performance Bond is executed and delivered under and subject to the Act, to which reference hereby is made.

The Principal and the Surety agree that any alterations, changes and/or additions to the Contract Documents, and/or any alterations, changes and/or additions to the Work to be performed under the Contract Documents, and/or any giving by the Obligee of any extensions of time for the performance of the Work in accordance with the Contract Documents, and/or any act of forbearance of either the Principal or the Obligee toward the other with respect to the Contract Documents, and/or the reduction of any percentage to be retained by the Obligee as permitted by the Contract Documents, shall not release, and/or discharge, in any manner whatsoever, the Principal and the Surety, or either of them, or their heirs, executors, administrators, successors and assigns, from liability and obligations under this Performance Bond; and the Surety, for value received, does waive notice of any such alterations, changes, additions, extensions of time, acts of forbearance, and/or reduction of retained percentage.

The Principal and the Surety agree that this Performance Bond (including the penal sum) shall be deemed amended automatically and immediately, without formal and separate amendments hereto, upon any amendment to the Contract Documents not increasing the contract price in the aggregate by more than twenty percent (20%), so as to bind the Principal and the Surety to the full and faithful performance of the Contract Documents as so amended and the Surety, for value received, does waive notice of any such amendment to the Contract Documents not increasing the Contract Price in the aggregate by more than twenty percent (20%). The term "Amendment", wherever used in this Performance Bond and whether referring to this Performance Bond, or the Contract Documents, shall include, without limitation, any alteration, addition, extension or modification, and of any character whatsoever.

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

Provided, further, that no final settlement between the Obligee and the Principal shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

In the event that the Obligee incurs legal fees for default or enforcement of its rights under the Contract Documents or Performance Bond, the Surety agrees to pay for all reasonable legal fees and costs incurred by the Obligee.

Any dispute resolution proceeding, legal or equitable, under this Performance Bond, shall be instituted in the Court of Common Pleas of Berks County or in the United States District Court for the Eastern District of Pennsylvania and not elsewhere. In such dispute resolution proceeding, Obligee may join both Principal and Surety as parties, and Principal and Surety hereby consent to such joinder, jurisdiction and venue. This Performance Bond shall be governed by, construed and enforced in accordance with the laws of the Commonwealth of Pennsylvania, without regard to principles of conflicts of law.

[Signature page follows]

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

IN WITNESS WHEREOF, the Principal and the Surety cause this Performance Bond to be signed, sealed and delivered this _____ day of _____, 20_____.

Individual Principal	
Witness:	By: _____ Name: _____ Trading and/or Doing Business as: _____
_____	_____

Partnership Principal	
Name of Partnership: _____	
Witness:	By: _____ Name: _____ Title: _____
_____	_____
Witness:	By: _____ Name: _____ Title: _____
_____	_____

Corporate Principal	
Name of Corporation: _____	
Attest:	By: _____ Name: _____ Title: _____*
_____	_____
[CORPORATE SEAL]	
* If the signatory is an authorized representative, attach proof evidencing authority to execute on behalf of the corporation	

Corporate Surety	
Name of Surety: _____	
Witness or Attest:	By: _____ Name: _____ Title: _____**
_____	_____
[CORPORATE SEAL]	
Attach an appropriate Power of Attorney evidencing the authority of the Attorney-in-Fact to act on behalf of the Surety.	

END OF SECTION 00 6114

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

SECTION 00 6115 – PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS that we, _____
as Principal (the “Principal”), and _____
, a company organized and existing under the laws of the _____
, having its principal office at _____
and authorized to do business in the Commonwealth of Pennsylvania, as Surety (the “Surety”), are held and
firmly bound, jointly and severally, unto the CITY OF READING, PENNSYLVANIA, as Obligee (the
“Obligee”), as hereinafter set forth in the full and just sum of:

lawful money of the United States of America, for the payment of which sum we bind ourselves, our heirs,
executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WITNESSETH THAT:

WHEREAS, the Principal heretofore has submitted to the Obligee a certain Bid, dated
_____, 20____ (the “Bid”), to perform General Construction Work for the Obligee,
in connection with the **ANAEROBIC DIGESTER NO. 4 AND NO. 5 TANK CLEANING PROJECT**
located in the City of Reading, Berks County, Pennsylvania, pursuant to Drawings, Specifications and other
related documents constituting the Bidding Documents, which are incorporated into the Bid by reference (the
“Contract Documents”), as prepared by T&M Associates, Inc.; and

WHEREAS, the Obligee, is a “Contracting Body” under provisions of Act No. 385 of the General
Assembly of the Commonwealth of Pennsylvania, approved by the Governor on December 20, 1967, known as
and cited as the “Public Works Contractors’ Bond Law of 1967” (the “Act”); and

WHEREAS, the Act, in Section 3(a), requires that, before an award shall be made to the Principal by the
Obligee in accordance with the Bid, the Principal shall furnish this Payment Bond to the Obligee, with this
Payment Bond to become binding upon the Award of the Contract to the Principal by the Obligee in accordance
with the Bid; and

WHEREAS, it also is a condition of the Contract Documents that this Payment Bond shall be furnished
by the Principal to the Obligee; and

WHEREAS, under the Contract Documents, it is provided, *inter alia*, that if the Principal shall furnish
this Payment Bond and the Performance Bond to the Obligee, and if the Obligee shall make an award to the
Principal in accordance with the Bid, then the Principal and the Obligee shall enter into an agreement with
respect to performance of such Work (the “Agreement”), the form of which Agreement is set forth in the
Contract Documents.

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

NOW, THEREFORE, the terms and conditions of this Payment Bond are and shall be that if the Principal and any subcontractor of the Principal to whom any portion of the Work under the Contract Documents shall be subcontracted, and if all assignees of the Principal and of any such subcontractor, promptly shall pay or shall cause to be paid, in full, all money which may be due any claimant supplying labor or materials in the prosecution and performance of the Work in accordance with the Contract Documents, including, without limitation, any amendment, extension or addition to the Contract Documents, for material furnished, labor supplied or labor performed, then this Payment Bond shall be void; otherwise, this Payment Bond shall be and shall remain in force and effect.

This Payment Bond, as provided by the Act, shall be solely for the protection of claimants supplying labor or materials to the Principal, any subcontractor of the Principal any assignees of the Principal, or any assignees of any subcontractor of the Principal in the prosecution of the Work covered by the Contract Documents, including, without limitation, any amendment, extension or addition to the Contract Documents and is conditioned for the prompt payment of all such materials furnished and labor supplied or performed in the prosecution of any portion of the Work. The term "claimant", when used herein and as required by the Act, shall mean any individual, firm, partnership, association or corporation. The phrase "labor or materials" when used herein and as required by the Act, shall include, without limitation, public utility services and reasonable rentals of equipment, but only for periods when the equipment rented is actually used at the site of the Work covered by the Contract Documents. As required by the Act, the provisions of this Payment Bond shall be applicable whether or not the material furnished or labor performed enters into and becomes a component part of the public building, public Work or public improvement contemplated by the Contract Documents.

As provided and required by the Act, the Principal and the Surety agree that any claimant, who has performed labor or furnished material in the prosecution of the Work in accordance with the Contract Documents, including, without limitation, any amendment, extension or addition to the Contract Documents, and who has not been paid therefore, in full, before the expiration of ninety (90) days after the day on which such claimant performed the last of such labor or furnished the last of such materials for which payment is claimed, may institute an action upon this Payment Bond, in the name of the claimant, in assumpsit, to recover any amount due the claimant for such labor or material; and may prosecute such action to final judgment and may have execution upon the judgment; provided, however, that: (a) any claimant who has a direct contractual relationship with any subcontractor of the Principal or any assignees of any subcontractor of the Principal, but has no contractual relationship, express or implied, with the Principal, may institute an action upon this Payment Bond only if such claimant first shall have given written notice, served in the manner provided in the Act, to the Principal, within ninety (90) days from the date upon which such claimant performed the last of the labor or furnished the last of the materials for which payment is claimed, stating, with substantial accuracy, the amount claimed and the name of the person for whom the Work was performed or to whom the material was furnished; and (b) no action upon this Payment Bond shall be commenced after the expiration of one (1) year from the day upon which the last of the labor was performed or material was supplied, for the payment of which such action is instituted by the claimant.

This Payment Bond is executed and delivered under and subject to the Act, to which reference hereby is made.

The Principal and the Surety agree that any alterations, changes and/or additions to the Contract Documents, and/or any alterations, changes and/or additions to the Work to be performed under the Contract Documents, and/or any giving by the Obligee of any extensions of time for the performance of the Work in accordance with the Contract Documents, and/or any act of forbearance of either the Principal or the Obligee

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

toward the other with respect to the Contract Documents, and/or the reduction of any percentage to be retained by the Oblige as permitted by the Contract Documents, shall not release, and/or discharge, in any manner whatsoever, the Principal and the Surety, or either of them, or their heirs, executors, administrators, successors and assigns, from liability and obligations under this Payment Bond; and the Surety, for value received, does waive notice of any such alterations, changes, additions, extensions of time, acts of forbearance and/or reduction of retained percentage.

The Principal and the Surety agree that this Payment Bond (including the penal sum) shall be deemed amended automatically and immediately, without formal and separate amendments hereto, upon amendment to the Contract Documents not increasing the contract price in the aggregate by more than twenty percent (20%), so as to bind the Principal and the Surety to the full and faithful performance of the Contract Documents as so amended and the Surety, for value received, does waive notice of any such amendment to the Contract Documents not increasing the Contract Price in the aggregate by more than twenty percent (20%). The term "Amendment", wherever used in this Payment Bond and whether referring to this Payment Bond, or the Contract Documents, shall include any alteration, addition, extension or modification, of any character whatsoever.

Provided, further, that no final settlement between the Oblige and the Principal shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

In the event that the Oblige incurs legal fees (e.g., fees of attorneys, paralegals and other legal professionals) for default or enforcement of its rights under the Contract Documents or Payment Bond, the Surety agrees to pay for all reasonable legal fees and costs incurred by the Oblige.

Any dispute resolution proceeding, legal or equitable, under this Payment Bond, shall be instituted in the Court of Common Pleas of Berks County or the United States District Court for the Eastern District of Pennsylvania and not elsewhere. In such dispute resolution proceeding, Oblige may join both Principal and Surety as parties, and Principal and Surety hereby consent to such joinder, jurisdiction and venue. This Payment Bond shall be governed by, construed and enforced in accordance with the laws of the Commonwealth of Pennsylvania, without regard to principles of conflicts of law.

[Signature page follows]

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

IN WITNESS WHEREOF, the Principal and the Surety cause this Payment Bond to be signed, sealed and delivered this _____ day of _____, 20_____.

Individual Principal	
Witness:	By: _____ Name: _____ Trading and/or Doing Business as: _____
_____	_____

Partnership Principal	
Name of Partnership: _____	
Witness:	By: _____ Name: _____ Title: _____
_____	_____
Witness:	By: _____ Name: _____ Title: _____
_____	_____

Corporate Principal	
Name of Corporation: _____	
Attest:	By: _____ Name: _____ Title: _____*
_____	_____
[CORPORATE SEAL]	
* If the signatory is an authorized representative, attach proof evidencing authority to execute on behalf of the corporation	

Corporate Surety	
Name of Surety: _____	
Witness or Attest:	By: _____ Name: _____ Title: _____**
_____	_____
[CORPORATE SEAL]	
Attach an appropriate Power of Attorney evidencing the authority of the Attorney-in-Fact to act on behalf of the Surety.	

END OF SECTION 00 6115

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

SECTION 00 6119 - WAIVER OF LIENS/MECHANICS' LIEN WAIVER

Berks County, Pennsylvania _____, 2013

OWNER/TENANT: City of Reading, Pennsylvania

CONTRACTOR: _____ ("Contractor")

CONTRACT: Contract between the City of Reading and Contractor dated _____, 2013.

PROJECT: All labor and material necessary for the **ANAEROBIC DIGESTER NO. 4 AND NO. 5 TANK CLEANING PROJECT** located in the City of Reading, Berks County, Pennsylvania at 895 Morgantown Road, Reading, PA (Berks County Tax Parcel Identification number 18530620901580).

1. Contractor hereby stipulates and agrees for payment of One Dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, that Contractor, any Subcontractor, any Sub-subcontractor, any materialman, or any other person furnishing labor or materials to any of them, shall not file a lien, commonly called a mechanics' lien, or claim for any and all amounts that are, from time-to-time, owed by the Owner/Tenant against the Project or improvements thereon, and any leasehold interests therein, or any part thereof, for any labor or materials furnished. All Subcontractors, Sub-subcontractors, materialmen, or any other person furnishing labor or materials to any of them or to the Contractor for the Project or improvements thereon, any leasehold interests therein, or any part thereof, shall look to and hold the Contractor personally liable for all Subcontracts, labor or materials furnished to the Project or improvements thereon, so that there shall not be any legal or lawful claim of any kind whatsoever against the Owner/Tenant for and about the erection, construction and completion of the Project or improvements thereon, and any leasehold interests therein, or any part thereof, or with respect to labor and materials furnished under any supplemental contract or arrangement for extra work in connection with alterations and related improvements on the Project and any leasehold interests therein, or any part thereof.

2. This Waiver of Liens/Mechanics' Lien Waiver, waiving the right of lien, shall be an independent covenant and shall also operate and be effective with respect to work done and materials furnished under any supplemental contract or arrangement for extra work in connection with alterations and related improvements at the Project and any leasehold interests therein.

3. In the event Contractor, any Subcontractor, any Sub-subcontractor, any materialman, or any other person furnishing labor and materials to any of them, files any mechanics' lien or claim, each hereby irrevocably waives any right to jury trial in any action to strike or discharge the lien.

4. Without limitation of the foregoing, this Waiver of Liens/Mechanics' Lien Waiver is made and intended to be filed with the Office of the Prothonotary of the county or counties in which the Project is located in accordance with the requirements of Section 402 of the Mechanics' Lien Law of 1963 of the Commonwealth of Pennsylvania (49 P.S. § 1402), as amended and supplemented.

5. Each of the terms, provisions, covenants, conditions of this Waiver of Liens/Mechanics' Lien Waiver, as the case may be, shall be binding upon and inure to the benefit of Owner/Tenant,

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

Contractor, each Subcontractor of Contractor, each Sub-subcontractor of each Subcontractor, and each party acting for, through, or under Contractor, Subcontractor, or Sub-subcontractor, and their respective heirs, executors, administrators, successors and assigns.

6. In order to give the Owner/Tenant full power and authority to protect itself and the Project against any and all claims filed by the Contractor, any Subcontractor, any Sub-subcontractor, any materialmen, any other person furnishing labor or materials to any of them, or anyone acting under or through them in violation of the foregoing covenant, the said Contractor, for itself and all persons or entities acting through it, hereby irrevocably authorizes and empowers any Attorney of any Court of Common Pleas of the Commonwealth of Pennsylvania, to appear for it or any of them, in any of the said Courts of Common Pleas as Attorney for it and in its name, mark any and all claims satisfied of record at the cost and expense of the Contractor, including, without limitation, all legal fees (e.g., fees of attorneys, paralegals, and any other legal professionals) related thereto, any and all claims or claim, lien or liens, filed by or for the Contractor, any Subcontractor, any Sub-subcontractor, any materialmen, any other person furnishing labor or materials to any of them, or anyone acting under or through them in violation of the foregoing covenant, or in its or their name against the Project or any part thereof. For such act or acts this shall be good and sufficient warrant and authority and a reference to the Court, Term, and Number in which and where this Waiver of Liens/Mechanics' Lien Waiver shall have been filed shall be a sufficient exhibit of the authority herein contained to warrant such action, and the Contractor does hereby remise, release and quit-claim all rights and all manner of errors, defects and imperfections whatsoever in entering such satisfaction or in any way touching or concerning the same.

7. In the event of a dispute between the Contractor and the Owner/Tenant, to the extent that the Owner/Tenant incurs any legal fees, professional fees, or other costs or expenses in defending, removing, marking satisfied any mechanics' liens or any other expenses incurred by Owner/Tenant in connection with mechanics' lien claims and/or judgments related to the Project, the Contractor will be solely responsible for those amounts incurred by the Owner/Tenant, which will be deducted to the extent available, from any amounts due the Contractor under the Contract. If the amount due the Contractor is not sufficient to cover such cost, the Contractor shall pay the difference to the Owner/Tenant within ten (10) days of receipt of the Owner/Tenant's invoice for such legal fees, professional fees or other costs and expenses.

IN WITNESS WHEREOF, Contractor, acting by its duly authorized officers and intending to be legally bound, has hereunto caused this instrument to be duly executed as of the day and year first above written.

CONTRACTOR:

By: _____

_____ Witness

Printed Name: _____

Title: _____

Date: _____

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

SECTION 006201 – SUBCONTRACTOR LIST

The following is a list of Subcontractors submitted by:

(Contractor) _____
to be used in connection with the Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project.

This list of Subcontractors is part of the Contract Documents. If awarded, Contractor is obligated to use the Subcontractors listed below unless otherwise authorized by the Owner in writing.

The following Work will be performed or provided by the named Subcontractors and coordinated by us:

SECTION OF WORK	SUBCONTRACTOR / TELEPHONE NO.
_____	_____
_____	_____

END OF SECTION 00 6201

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

SECTION 006202 – EQUIPMENT AND MATERIALS LIST

The following is a list of Equipment and Materials submitted by:

(Bidder) _____
to be used in connection with the Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project.

This list of Equipment and Materials is part of the Contract Documents. If awarded, your company is obligated to use the Equipment and Materials listed below unless otherwise authorized by the Owner in writing.

COMPONENT OF WORK

MANUFACTURER

_____	_____
_____	_____
_____	_____
_____	_____

END OF SECTION 00 6202

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

SECTION C-620 – CONTRACTOR’S APPLICATION FOR PAYMENT FORM

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

SECTION C-625 – CERTIFICATE OF SUBSTANTIAL COMPLETION FORM

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

SECTION C-941 – CHANGE ORDER FORM

Change Order

No. _____

Date of Issuance: _____ Effective Date: _____

Project:	Owner:	Owner's Contract No.:
Contract:	Date of Contract:	
Contractor:	Engineer's Project No.:	

The Contract Documents are modified as follows upon execution of this Change Order:

Description: _____

Attachments (list documents supporting change):

CHANGE IN CONTRACT PRICE:	CHANGE IN CONTRACT TIMES:
----------------------------------	----------------------------------

Original Contract Price: \$ _____ [Increase] [Decrease] from previously approved Change Orders No. ____ to No. ____: \$ _____ Contract Price prior to this Change Order: \$ _____ [Increase] [Decrease] of this Change Order: \$ _____ Contract Price incorporating this Change Order: \$ _____	Original Contract Times: <input type="checkbox"/> Working days <input type="checkbox"/> Calendar days Substantial completion (days or date): _____ Ready for final payment (days or date): _____ [Increase] [Decrease] from previously approved Change Orders No. ____ to No. ____: Substantial completion (days): _____ Ready for final payment (days): _____ Contract Times prior to this Change Order: Substantial completion (days or date): _____ Ready for final payment (days or date): _____ [Increase] [Decrease] of this Change Order: Substantial completion (days or date): _____ Ready for final payment (days or date): _____ Contract Times with all approved Change Orders: Substantial completion (days or date): _____ Ready for final payment (days or date): _____
---	---

RECOMMENDED: By: _____ Engineer (Authorized Signature) Date: _____ Approved by Funding Agency (if applicable): _____	ACCEPTED: By: _____ Owner (Authorized Signature) Date: _____	ACCEPTED: By: _____ Contractor (Authorized Signature) Date: _____ Date: _____
---	--	--

Change Order Instructions

A. GENERAL INFORMATION

This document was developed to provide a uniform format for handling contract changes that affect Contract Price or Contract Times. Changes that have been initiated by a Work Change Directive must be incorporated into a subsequent Change Order if they affect Price or Times.

Changes that affect Contract Price or Contract Times should be promptly covered by a Change Order. The practice of accumulating Change Orders to reduce the administrative burden may lead to unnecessary disputes.

If Milestones have been listed in the Agreement, any effect of a Change Order thereon should be addressed.

For supplemental instructions and minor changes not involving a change in the Contract Price or Contract Times, a Field Order should be used.

B. COMPLETING THE CHANGE ORDER FORM

Engineer normally initiates the form, including a description of the changes involved and attachments based upon documents and proposals submitted by Contractor, or requests from Owner, or both.

Once Engineer has completed and signed the form, all copies should be sent to Owner or Contractor for approval, depending on whether the Change Order is a true order to the Contractor or the formalization of a negotiated agreement for a previously performed change. After approval by one contracting party, all copies should be sent to the other party for approval. Engineer should make distribution of executed copies after approval by both parties.

If a change only applies to price or to times, cross out the part of the tabulation that does not apply.

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

**SECTION 00 7200 – GENERAL CONDITIONS OF THE CONSTRUCTION
CONTRACT**

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

These documents have been modified by Entech Engineering, Inc., and Fox Rothschild LLP to show additions, deletions and modifications within the General Conditions

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

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CONSTRUCTION SPECIFICATIONS INSTITUTE

EJCDC C-700 Standard General Conditions of the Construction Contract

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~~STANDARD~~ GENERAL CONDITIONS OF THE
CONSTRUCTION CONTRACT

TABLE OF CONTENTS

	Page
Article 1 – Definitions and Terminology	1
1.01 Defined Terms.....	1
1.02 Terminology	5
Article 2 – Preliminary Matters	6
2.01 Delivery of Bonds and Evidence of Insurance	6
2.02 Copies of Documents.....	6
2.03 Commencement of Contract Times; Notice to Proceed.....	7
2.04 Starting the Work	7
2.05 Before Starting Construction	7
2.06 Preconstruction Conference; Designation of Authorized Representatives.....	7
2.07 Initial Acceptance of Schedules.....	8
Article 3 – Contract Documents: Intent, Amending, Reuse	8
3.01 Intent.....	8
3.02 Reference Standards.....	8
3.03 Reporting and Resolving Discrepancies.....	9
3.04 Amending and Supplementing Contract Documents.....	10
3.05 Reuse of Documents	10
3.06 Electronic Data.....	10
Article 4 – Availability of Lands; Subsurface and Physical Conditions; Hazardous Environmental Conditions; Reference Points.....	11
4.01 Availability of Lands.....	11
4.02 Subsurface and Physical Conditions.....	11
4.03 Differing Subsurface or Physical Conditions	12
4.04 Underground Facilities.....	13
4.05 Reference Points.....	14
4.06 Hazardous Environmental Condition at Site	14
Article 5 – Bonds and Insurance.....	16
5.01 Performance, Payment, and Other Bonds.....	16
5.02 Licensed Sureties and Insurers.....	17
5.03 Certificates of Insurance	17
5.04 Contractor’s Insurance	17
5.05 Owner’s Liability Insurance.....	19
5.06 Property Insurance.....	19

EJCDC C-700 Standard General Conditions of the Construction Contract

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Page i

5.08	Receipt and Application of Insurance Proceeds	21
5.09	Acceptance of Bonds and Insurance; Option to Replace	22
5.10	Partial Utilization, Acknowledgment of Property Insurer.....	22
Article 6 – Contractor’s Responsibilities		22
6.01	Supervision and Superintendence.....	22
6.02	Labor; Working Hours	23
6.03	Services, Materials, and Equipment	23
6.04	Progress Schedule	23
6.05	Substitutes and “Or-Equals”	24
6.06	Concerning Subcontractors, Suppliers, and Others.....	26
6.07	Patent Fees and Royalties	27
6.08	Permits.....	28
6.09	Laws and Regulations	28
6.10	Taxes	29
6.11	Use of Site and Other Areas.....	29
6.12	Record Documents.....	30
6.13	Safety and Protection	30
6.14	Safety Representative.....	31
6.15	Hazard Communication Programs.....	31
6.16	Emergencies	31
6.17	Shop Drawings and Samples	31
6.18	Continuing the Work.....	33
6.19	Contractor’s General Warranty and Guarantee	33
6.20	Indemnification	34
6.21	Delegation of Professional Design Services.....	35
Article 7 – Other Work at the Site.....		36
7.01	Related Work at Site	36
7.02	Coordination.....	36
7.03	Legal Relationships.....	37
Article 8 – Owner’s Responsibilities.....		37
8.01	Communications to Contractor.....	37
8.02	Replacement of Engineer	37
8.03	Furnish Data	37
8.04	Pay When Due.....	37
8.05	Lands and Easements; Reports and Tests.....	37
8.06	Insurance.....	38
8.07	Change Orders.....	38
8.08	Inspections, Tests, and Approvals	38
8.09	Limitations on Owner’s Responsibilities	38
8.10	Undisclosed Hazardous Environmental Condition	38
8.11	Evidence of Financial Arrangements.....	38
8.12	Compliance with Safety Program.....	38

8.12 Compliance with Safety Program	38
Article 9 – Engineer’s Status During Construction	38
9.01 Owner’s Representative	38
9.02 Visits to Site	39
9.03 Project Representative	39
9.04 Authorized Variations in Work	39
9.05 Rejecting Defective Work	40
9.06 Shop Drawings, Change Orders and Payments	40
9.07 Determinations for Unit Price Work	40
9.08 Decisions on Requirements of Contract Documents and Acceptability of Work	40
9.09 Limitations on Engineer’s Authority and Responsibilities	41
9.10 Compliance with Safety Program	41
Article 10 – Changes in the Work; Claims	41
10.01 Authorized Changes in the Work	41
10.02 Unauthorized Changes in the Work	42
10.03 Execution of Change Orders	42
10.04 Notification to Surety	42
10.05 Claims	42
Article 11 – Cost of the Work; Allowances; Unit Price Work	43
11.01 Cost of the Work	43
11.02 Allowances	46
11.03 Unit Price Work	47
Article 12 – Change of Contract Price; Change of Contract Times	48
12.01 Change of Contract Price	48
12.02 Change of Contract Times	49
12.03 Delays	49
Article 13 – Tests and Inspections; Correction, Removal or Acceptance of Defective Work	50
13.01 Notice of Defects	50
13.02 Access to Work	50
13.03 Tests and Inspections	50
13.04 Uncovering Work	51
13.05 Owner May Stop the Work	52
13.06 Correction or Removal of Defective Work	52
13.07 Correction Period	52
13.08 Acceptance of Defective Work	53
13.09 Owner May Correct Defective Work	53
Article 14 – Payments to Contractor and Completion	54
14.01 Schedule of Values	54
14.02 Progress Payments	54
14.03 Contractor’s Warranty of Title	57

14.06 Final Inspection	59
14.07 Final Payment.....	59
14.08 Final Completion Delayed	60
14.09 Waiver of Claims	60
Article 15 – Suspension of Work and Termination	61
15.01 Owner May Suspend Work.....	61
15.02 Owner May Terminate for Cause	61
15.03 Owner May Terminate For Convenience	62
15.04 Contractor May Stop Work or Terminate.....	63
Article 16 – Dispute Resolution	63
16.01 Methods and Procedures	63
Article 17 – Miscellaneous	64
17.01 Giving Notice	64
17.02 Computation of Times	64
17.03 Cumulative Remedies	64
17.04 Survival of Obligations	64
17.05 Controlling Law	64
17.06 Headings.....	64

ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 2. *Agreement*—The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.
 3. *Application for Payment*—The form acceptable to Engineer and Program Manager which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 4. *Asbestos*—Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
 5. *Bid*—The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 6. *Bidder*—The individual or entity who submits a Bid directly to Owner.
 7. *Bidding Documents*—The Bidding Requirements and the proposed Contract Documents (including all Addenda).
 8. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid security of acceptable form, if any, and the Bid Form with any supplements.
 9. *Change Order*—A document recommended by Engineer and reviewed by the Program Manager which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.
 10. *Claim*—A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.

11. *Contract*—The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.
12. *Contract Documents*—Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.
13. *Contract Price*—The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).
14. *Contract Times*—The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any; (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer’s written recommendation, after Engineer has consulted with Program Manager, of final payment.
15. *Contractor*—The individual or entity with whom Owner has entered into the Agreement.
16. *Cost of the Work*—See Paragraph 11.01 for definition.
17. *Drawings*—That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.
18. *Effective Date of the Agreement*—The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
19. *Engineer*—The individual or entity named as such in the Agreement.
20. *Field Order*—A written order issued by Engineer, after Engineer has consulted with Program Manager, which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.
21. *General Requirements*—Sections of Division 1 of the Specifications.
22. *Hazardous Environmental Condition*—The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto.

23. *Hazardous Waste*—The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
24. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
25. *Liens*—Charges, security interests, or encumbrances upon Project funds, real property, or personal property.
26. *Milestone*—A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.
27. *Notice of Award*—The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.
28. *Notice to Proceed*—A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.
29. *Owner*—The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.
30. *PCBs*—Polychlorinated biphenyls.
31. *Petroleum*—Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.
32. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.
33. *Project*—The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.
34. *Project Manual*—The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.
35. *Radioactive Material*—Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.

36. *Resident Project Representative*—The authorized representative of Engineer who may be assigned to the Site or any part thereof.
37. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.
38. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.
39. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.
40. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
41. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.
42. *Specifications*—That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.
43. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.
44. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, after Engineer has consulted with Program Manager,, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.
45. *Successful Bidder*—The Bidder submitting a responsive Bid to whom Owner makes an award.
46. *Supplementary Conditions*—That part of the Contract Documents which amends or supplements these General Conditions.
47. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish

materials or equipment to be incorporated in the Work by Contractor or Subcontractor.

48. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
49. *Unit Price Work*—Work to be paid for on the basis of unit prices.
50. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.
51. *Work Change Directive*—A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer, after Engineer has consulted with Program Manager, ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.



1.02 Terminology

- A. The words and terms discussed in Paragraph 1.02.B through F are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. *Intent of Certain Terms or Adjectives:*
 1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer, after Engineer has consulted with Program Manager. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as

shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.

C. *Day:*

1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.

D. *Defective:*

1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - a. does not conform to the Contract Documents; or
 - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 - c. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

E. *Furnish, Install, Perform, Provide:*

1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
4. When “furnish,” “install,” “perform,” or “provide” is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, “provide” is implied.

- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

- A. When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
- B. ~~*Evidence of Insurance:* Before any Work at the Site is started, Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which Contractor and Owner respectively are required to purchase and maintain in accordance with Article 5.~~



2.02 *Copies of Documents*

- A. ~~Owner shall furnish to Contractor up to ten printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction.~~



2.03 *Commencement of Contract Times; Notice to Proceed*

- A. ~~The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.~~



2.04 *Starting the Work*

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to the date on which the Contract Times commence to run.

2.05 *Before Starting Construction*

- A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to Engineer with a copy to Program Manager for timely review:
1. a Preliminary Schedule in accordance with the General Requirements as set forth in Division 1;
 2. a preliminary Schedule of Submittals; and

3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.06 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, Program Manager and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.07 *Initial Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference attended by Contractor, Engineer, Program Manager and others as appropriate will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer with a copy to Program Manager.
 1. The Progress Schedule will be acceptable to Engineer and Program Manager if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer or Program Manager responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.
 2. Contractor's Schedule of Submittals will be acceptable to Engineer and Program Manager if it provides a workable arrangement for reviewing and processing the required submittals.
 3. Contractor's Schedule of Values will be acceptable to Engineer and Program Manager as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.



ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that reasonably may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated result will be provided whether or not specifically called for, at no additional cost to Owner.
- C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer, after Engineer has consulted with Program Manager, as provided in Article 9.

3.02 *Reference Standards*

- A. Standards, Specifications, Codes, Laws, and Regulations
 - 1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
 - 2. No provision of any such standard, specification, manual, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, Program Manager or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Owner, Engineer, Program Manager or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies:*

- 1. ~~Contractor's Review of Contract Documents Before Starting Work: Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor discovers,~~

~~or has actual knowledge of, and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.~~

REFER TO S.C.

2. *Contractor's Review of Contract Documents During Performance of Work:* If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) any standard, specification, manual, or code, or (c) any instruction of any Supplier, then Contractor shall promptly report it to Engineer and Program Manager in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.
3. ~~Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.~~

REFER TO S.C.

B. *Resolving Discrepancies:*

1. ~~Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:~~
 - a. ~~the provisions of any standard, specification, manual, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference in the Contract Documents); or~~
 - b. ~~the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).~~

REFER TO S.C.

3.04 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.
- B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:
 1. A Field Order;
 2. Engineer's approval of a Shop Drawing or Sample (subject to the provisions of Paragraph 6.17.D.3); or

3. Engineer's written interpretation or clarification, after Engineer has consulted with Program Manager,.

3.05 *Reuse of Documents*

- A. Contractor and any Subcontractor or Supplier shall not:
 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer, Program Manager, Owner or any of their consultants, including electronic media editions; or
 2. reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

3.06 *Electronic Data*

- A. Unless otherwise stated in the Supplementary Conditions, the data furnished by Owner, Program Manager or Engineer to Contractor, or by Contractor to Owner, Program Manager or Engineer, that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.
- C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

ARTICLE 4 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS

4.01 *Availability of Lands*

- A. ~~Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in Owner’s furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.~~
- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner’s interest therein as necessary for giving notice of or filing a mechanic’s or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

REFER TO S.C.

4.02 *Subsurface and Physical Conditions*

- A. ~~Reports and Drawings:~~ The Supplementary Conditions identify:
- ~~those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site; and~~
 - ~~those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).~~
- B. ~~Limited Reliance by Contractor on Technical Data Authorized:~~ Contractor may rely upon the accuracy of the “technical data” contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such “technical data” is identified in the Supplementary Conditions. Except for such reliance on such “technical data,” Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
- ~~the completeness of such reports and drawings for Contractor’s purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or~~

2. ~~other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or~~
3. ~~any Contractor interpretation of or conclusion drawn from any “technical data” or any such other data, interpretations, opinions, or information.~~



4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed either:

1. ~~is of such a nature as to establish that any “technical data” on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or~~
2. is of such a nature as to require a change in the Contract Documents; or
3. differs materially from that shown or indicated in the Contract Documents; or
4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;



then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify Owner, Program Manager and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

B. *Engineer’s Review:* After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, consult with Program Manager, determine the necessity of Owner’s obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor and Program Manager) of Engineer’s findings and conclusions.

C. *Possible Price and Times Adjustments:*

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor’s cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. such condition must meet any one or more of the categories described in Paragraph 4.03.A; and
 - b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.

2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:
 - a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or
 - b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or
 - c. Contractor failed to give the written notice as required by Paragraph 4.03.A.
3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, neither Owner, Program Manager or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

4.04 *Underground Facilities*

- A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:
 1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data provided by others; and
 2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
 - a. reviewing and checking all such information and data;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents;
 - c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction; and

- d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. *Not Shown or Indicated:*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner, Program Manager and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

4.05 *Reference Points*

- A. ~~Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner.~~ Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

REFER TO S.C.

4.06 *Hazardous Environmental Condition at Site*

- A. *Reports and Drawings:* The Supplementary Conditions identify those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at the Site.

- B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the “technical data” contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such “technical data” is identified in the Supplementary Conditions. Except for such reliance on such “technical data,” Contractor may not rely upon or make any claim against Owner, Program Manager or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
1. the completeness of such reports and drawings for Contractor’s purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
 2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
 3. any Contractor interpretation of or conclusion drawn from any “technical data” or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.
- D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner, Program Manager and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Program Manager and Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 4.06.E.
- E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered written notice to Contractor: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.

- F. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.
- G. ~~To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.~~
- H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner, Program Manager and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

REFER TO S.C.

ARTICLE 5 – BONDS AND INSURANCE

5.01 *Performance, Payment, and Other Bonds*

- A. ~~Contractor shall furnish performance and payment bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as~~

REFER TO S.C.

provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.

- B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the list of “Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies” as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual’s authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed each bond.
- C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner, Program Manager and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

5.02 *Licensed Sureties and Insurers*

- A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

5.03 *Certificates of Insurance*

- A. Contractor shall deliver to Owner, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.
- B. Owner shall deliver to Contractor, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.
- C. Failure of Owner to demand such certificates or other evidence of Contractor's full compliance with these insurance requirements or failure of Owner to identify a deficiency in compliance from the evidence provided shall not be construed as a waiver of Contractor’s obligation to maintain such insurance.

- D. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor.
- E. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner in the Contract Documents.

5.04 *Contractor's Insurance*

- A. Contractor shall purchase and maintain such insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:
 - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;
 - 2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;
 - 3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;
 - 4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:
 - a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or
 - b. by any other person for any other reason;
 - 5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and
 - 6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.
- B. The policies of insurance required by this Paragraph 5.04 shall:
 - 1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, be written on an occurrence basis, include as additional insureds (subject to any customary exclusion regarding professional liability) Owner, Program Manager and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and

include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;

2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;
3. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;
4. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);
5. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and
6. include completed operations coverage:
 - a. Such insurance shall remain in effect for two years after final payment.
 - b. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

REFER TO S.C.

5.05 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 5.04, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

5.06 *Property Insurance*

- A. ~~Unless otherwise provided in the Supplementary Conditions, Owner shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:~~
 1. ~~include the interests of Owner, Contractor, Subcontractors, Program Manager and Engineer, and any other individuals or entities identified in the Supplementary~~

~~Conditions, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee;~~

- ~~2. be written on a Builder's Risk "all-risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than that caused by flood), and such other perils or causes of loss as may be specifically required by the Supplementary Conditions.~~
 - ~~3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);~~
 - ~~4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;~~
 - ~~5. allow for partial utilization of the Work by Owner;~~
 - ~~6. include testing and startup; and~~
 - ~~7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other loss payee to whom a certificate of insurance has been issued.~~
- B. ~~Owner shall purchase and maintain such equipment breakdown insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, Program Manager and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee.~~
- C. ~~All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other loss payee to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.~~
- D. ~~Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the~~

~~Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.~~

- E. ~~If Contractor requests in writing that other special insurance be included in the property insurance policies provided under this Paragraph 5.06, Owner shall, if possible, include such insurance, and the cost thereof will be charged to Contractor by appropriate Change Order. Prior to commencement of the Work at the Site, Owner shall in writing advise Contractor whether or not such other insurance has been procured by Owner.~~

5.07 *Waiver of Rights*



- A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, Program Manager and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or loss payees thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors, Program Manager and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner as trustee or otherwise payable under any policy so issued.
- B. ~~Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for:~~
- ~~1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and~~
 - ~~2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during~~

~~partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.~~

- C. ~~Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them.~~



5.08 *Receipt and Application of Insurance Proceeds*

- A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the loss payees, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order.
- B. Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.

5.09 *Acceptance of Bonds and Insurance; Option to Replace*

- A. ~~If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.~~



5.10 *Partial Utilization, Acknowledgment of Property Insurer*

- A. If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

ARTICLE 6 – CONTRACTOR’S RESPONSIBILITIES

6.01 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.
- B. ~~At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.~~



6.02 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner’s written consent (which will not be unreasonably withheld) given after prior written notice to Program Manager.

6.03 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.
- B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer or Program Manager, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

6.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 as it may be adjusted from time to time as provided below.
 - 1. Contractor shall submit to Engineer, with a copy to Program Manager, for acceptance (to the extent indicated in Paragraph 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.
 - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.

6.05 *Substitutes and "Or-Equals"*

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.
 - 1. *"Or-Equal" Items:* If in Engineer's sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar

so that no change in related Work will be required, it may be considered by Engineer as an “or-equal” item, in which case review and approval of the proposed item may, in Engineer’s sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:

- a. in the exercise of reasonable judgment Engineer determines that:
 - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole; and
 - 3) it has a proven record of performance and availability of responsive service.
- b. Contractor certifies that, if approved and incorporated into the Work:
 - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

2. *Substitute Items:*

- a. If in Engineer’s sole discretion an item of material or equipment proposed by Contractor does not qualify as an “or-equal” item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.
- b. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.
- c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented by the General Requirements, and as Engineer may decide is appropriate under the circumstances.
- d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
 - 1) shall certify that the proposed substitute item will:

- a) perform adequately the functions and achieve the results called for by the general design,
 - b) be similar in substance to that specified, and
 - c) be suited to the same use as that specified;
- 2) will state:
- a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time,
 - b) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and
 - c) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;
- 3) will identify:
- a) all variations of the proposed substitute item from that specified, and
 - b) available engineering, sales, maintenance, repair, and replacement services; and
- 4) shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.
- B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer, after Engineer has consulted with Program Manager,. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.
- C. *Engineer's Evaluation:* Engineer will be allowed a reasonable time within which to consult with Program Manager and evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by a Change Order in the case of a substitute and

an approved Shop Drawing for an “or equal.” Engineer will advise Contractor in writing of any negative determination.

- D. *Special Guarantee:* Owner may require Contractor to furnish at Contractor’s expense a special performance guarantee or other surety with respect to any substitute.
- E. *Engineer’s and Program Manager’s Cost Reimbursement:* Engineer and Program Manager will record ~~Engineer’s~~ its costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer and Program Manager for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- F. *Contractor’s Expense:* Contractor shall provide all data in support of any proposed substitute or “or-equal” at Contractor’s expense.

6.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.
- B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner’s acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.
- C. Contractor shall be fully responsible to Owner, Program Manager and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities

performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:

1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner, Program Manager or Engineer and any such Subcontractor, Supplier or other individual or entity; nor
 2. shall create any obligation on the part of Owner, Program Manager or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.
- D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.
- E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.
- F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as a loss payee on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

6.07 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual

knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.

- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner, Program Manager and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

6.08 *Permits*

- A. ~~Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses.~~ Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.



6.09 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner, Program Manager nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising

~~out of or relating to such Work. However, it shall not be Contractor's responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.~~

- ~~C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.~~



6.10 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.



6.11 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas:*

1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.
2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.
3. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner, Program Manager and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work or due to the failure or omission of the Contractor including, but not limited to, fines, penalties or other fees or damages.

- B. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.
- C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.
- D. *Loading Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.12 *Record Documents*

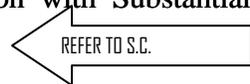
- A. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to Engineer and Program Manager for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to Engineer for Owner.

6.13 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
 1. all persons on the Site or who may be affected by the Work;
 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and

shall cooperate with them in the protection, removal, relocation, and replacement of their property.

- C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.
- D. Contractor shall inform Owner, Program Manager and Engineer of the specific requirements of Contractor's safety program with which Owner's, Program Manager's and Engineer's employees and representatives must comply while at the Site.
- E. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner, Program Manager or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
- F. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).



6.14 *Safety Representative*

- A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

6.15 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

6.16 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer and Program Manager prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If

Engineer, after Engineer has consulted with Program Manager, determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

6.17 *Shop Drawings and Samples*

A. Contractor shall submit Shop Drawings and Samples to Engineer for review ~~and approval~~ in accordance with the accepted Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.

1. *Shop Drawings:*

- a. Submit number of copies specified in the General Requirements.
- b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.

2. *Samples:*

- a. Submit number of Samples specified in the Specifications.
- b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.

B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review ~~and approval~~ of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. *Submittal Procedures:*

1. Before submitting each Shop Drawing or Sample, Contractor shall have:
 - a. reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;

- c. determined and verified the suitability of all materials offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval of that submittal.
 3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawings or Sample submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

D. *Engineer's Review:*

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review ~~and approval~~ will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
2. Engineer's review ~~and approval~~ will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review ~~and approval~~ of a separate item as such will not indicate approval of the assembly in which the item functions.
3. Engineer's review ~~and approval~~ shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review ~~and approval~~ shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

E. *Resubmittal Procedures:*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required,

new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

6.18 *Continuing the Work*

- A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

6.19 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Owner, Program Manager and Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on representation of Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
1. observations by Engineer;
 2. recommendation by Engineer or payment by Owner of any progress or final payment;
 3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
 4. use or occupancy of the Work or any part thereof by Owner;
 5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;
 6. any inspection, test, or approval by others; or

7. any correction of defective Work by Owner.

6.20 *Indemnification*

A. ~~To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable.~~



B. In any and all claims against Owner, Program Manager or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

C. The indemnification obligations of Contractor under Paragraph 6.20.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:

1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

6.21 *Delegation of Professional Design Services*

A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.

- B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.
- C. Owner, Program Manager and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.



ARTICLE 7 – OTHER WORK AT THE SITE

7.01 Related Work at Site

- A. Owner may perform other work related to the Project at the Site with Owner's employees, or through other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:
 - 1. written notice thereof will be given to Contractor prior to starting any such other work; and
 - 2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.
- B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise

make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer, Program Manager and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.

- C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to Engineer and Program Manager in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

7.02 *Coordination*



- A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:
 - 1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;
 - 2. the specific matters to be covered by such authority and responsibility will be itemized; and
 - 3. the extent of such authority and responsibilities will be provided.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

7.03 *Legal Relationships*

- A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.
- B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's wrongful actions or inactions.
- C. Contractor shall be liable to Owner and any other contractor under direct contract to Owner for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's wrongful action or inactions.



ARTICLE 8 – OWNER’S RESPONSIBILITIES

8.01 *Communications to Contractor*

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Program Manager.

8.02 *Replacement of Engineer*

- A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.

8.03 *Furnish Data*

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

8.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.

8.05 *Lands and Easements; Reports and Tests*

- A. Owner’s duties with respect to providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner’s identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

8.06 *Insurance*

- A. Owner’s responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

8.07 *Change Orders*

- A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

8.08 *Inspections, Tests, and Approvals*

- A. Owner’s responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

8.09 *Limitations on Owner’s Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor’s means, methods, techniques, sequences, or procedures of

construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

8.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

8.11 *Evidence of Financial Arrangements*

- A. ~~Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents.~~

8.12 *Compliance with Safety Program*

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed pursuant to Paragraph 6.13.D.

ARTICLE 9 — ENGINEER'S STATUS DURING CONSTRUCTION



9.01 *Owner's Representative*

- A. ~~Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents.~~

9.02 *Visits to Site*

- A. ~~Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.~~
- B. ~~Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's~~

~~Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.~~

9.03 *Project Representative*

- A. ~~If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.~~

9.04 *Authorized Variations in Work*

- A. ~~Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.~~

9.05 *Rejecting Defective Work*

- A. ~~Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.~~

9.06 *Shop Drawings, Change Orders and Payments*

- A. ~~In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.~~
- B. ~~In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.~~

- C. ~~In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.~~
- D. ~~In connection with Engineer's authority as to Applications for Payment, see Article 14.~~

9.07 *Determinations for Unit Price Work*

- A. ~~Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of Paragraph 10.05.~~

9.08 *Decisions on Requirements of Contract Documents and Acceptability of Work*

- A. ~~Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question.~~
- B. ~~Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believes that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.~~
- C. ~~Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.~~
- D. ~~When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.~~

9.09 *Limitations on Engineer's Authority and Responsibilities*

- A. ~~Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.~~

- B. ~~Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.~~
- C. ~~Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.~~
- D. ~~Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with, the Contract Documents.~~
- E. ~~The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to the Resident Project Representative, if any, and assistants, if any.~~

9.10 *Compliance with Safety Program*

- A. ~~While at the Site, Engineer's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Engineer has been informed pursuant to Paragraph 6.13.D.~~

ARTICLE 10 – CHANGES IN THE WORK; CLAIMS

10.01 *Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).
- B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

10.02 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the

Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.D.

10.03 *Execution of Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer, after Engineer has consulted with Program Manager, covering:
1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;
 2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and
 3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.



10.04 *Notification to Surety*

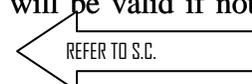
- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

10.05 *Claims*

- A. *Engineer's Decision Required:* All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.
- B. *Notice:* Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer

allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Times shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).

- C. *Engineer's Action:* Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:
1. deny the Claim in whole or in part;
 2. approve the Claim; or
 3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.
- D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.
- E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial. However, prior to pursuing any remedy under Article 16, the parties will meet in person with Engineer and Program Manager to engage in good faith negotiations to resolve the issue.
- F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.



ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

11.01 *Cost of the Work*

- A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the

Project, shall not include any of the costs itemized in Paragraph 11.01.B, and shall include only the following items:

1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.
2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.
3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer and Program Manager, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
5. Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the

performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.

- c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Program Manager, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
 - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
 - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
 - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.
 - g. The cost of utilities, fuel, and sanitary facilities at the Site.
 - h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, express and courier services, and similar petty cash items in connection with the Work.
 - i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.
- B. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:
- 1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal

or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.

2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
 4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A.
- C. *Contractor's Fee:* When all the Work is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.
- D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

11.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Program Manager.
- B. ~~Cash Allowances:~~
1. ~~Contractor agrees that:~~
 - a. ~~the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and~~
 - b. ~~Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have~~

~~been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.~~

REFER TO S.C.

C. ~~Contingency Allowance:~~

1. ~~Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.~~
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 *Unit Price Work*

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:
 1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly (as defined below in Sections 11.03.D.4) from the estimated quantity of such item indicated in the Agreement; and
 2. there is no corresponding adjustment with respect to any other item of Work; and
 3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.
 4. If the total quantity of any item of Unit Price Work varies from the estimate contained in the Bid Form by more than 25 percent, payment may be made according to the following categories:
 - a. Increases of More Than 25 Percent. Should the total quantity of any "major item" of Unit Price Work exceed the estimate contained in the Bid Form by

more than 25 percent, the Work in excess of 125 percent of such estimate may be adjusted. Such adjustment of the unit price is to be the difference between the Bid unit price and the unit cost determined. Overhead will be deemed to have been recovered by the contractor by the payments made for the 125 percent of the Contract quantity for such item already paid, and in computing the new unit cost, such overhead will be excluded.

- b. The term “major item” means any item of Unit Price Work having an original Contract value in excess of fifteen percent (15%) of the original Contract Price.
- c. Decreases of More Than 25 Percent. Should the total quantity of any “major” item be less than 75 percent of the estimate contained in the Bid, the quantity of said item may be adjusted. Such adjustment of the unit price is to be the difference between the Bid unit Price and the unit cost determined, of the total quantity of the item, including overhead. Payment for the total quantity of such item of Unit Price Work is not to exceed the payment that would be made for the performance of 75 percent of the estimate contained in the Bid Form for such item at the original unit price bid.

ARTICLE 12 – CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01 Change of Contract Price

- A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:
 - 1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or
 - 2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or
 - 3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor’s fee for overhead and profit (determined as provided in Paragraph 12.01.C).
- C. ~~Contractor’s Fee: The Contractor’s fee for overhead and profit shall be determined as follows:~~

1. ~~a mutually acceptable fixed fee; or~~
2. ~~if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:~~
 - a. ~~for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;~~
 - b. ~~for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;~~
 - c. ~~where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 12.01.C.2.a and 12.01.C.2.b is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;~~
 - d. ~~no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;~~
 - e. ~~the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and~~
 - f. ~~when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.~~

REFER TO S.C.

12.02 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

12.03 *Delays*

- A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor

shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.

~~B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.~~

REFER TO S.C.

C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.C.

D. Owner, Program Manager, Engineer, and their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

ARTICLE 13 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.01 Notice of Defects

A. Prompt notice of all defective Work of which Owner, Program Manager or Engineer has actual knowledge will be given to Contractor. Defective Work may be rejected, corrected, or accepted as provided in this Article 13.

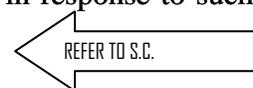
13.02 Access to Work

A. Owner, Program Manager, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for

their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

13.03 *Tests and Inspections*

- A. Contractor shall give Engineer and Program Manager timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
- B. Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:
 - 1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;
 - 2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in Paragraph 13.04.C; and
 - 3. as otherwise specifically provided in the Contract Documents.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer, with a copy to Program Manager, the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's, Program Manager's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.
- E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation.
- F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.



13.04 *Uncovering Work*

- A. If any Work is covered contrary to the written request of Engineer or Program, it must, if requested by Engineer or Program Manager, be uncovered for Engineer's or Program Manager's observation and replaced at Contractor's expense.
- B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.
- C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.
- D. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

13.05 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

13.06 *Correction or Removal of Defective Work*

- A. Promptly after receipt of written notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such

correction or removal (including but not limited to all costs of repair or replacement of work of others).

- B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

13.07 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
 - 1. repair such defective land or areas; or
 - 2. correct such defective Work; or
 - 3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
 - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.
- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.
- E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as

a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

13.08 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness) and for the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

13.09 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days written notice to Contractor, correct, or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Program Manager, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.
- C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate

decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 13.09.

ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 *Schedule of Values*

- A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.



14.02 *Progress Payments*

A. *Applications for Payments:*

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer, with a copy to Program Manager, for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.
2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.



B. *Review of Applications:*

1. Engineer will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's consultation with Program Manager and observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
 - a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
 - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or
 - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
 - a. to supervise, direct, or control the Work, or
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or

- c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
 - d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:
- a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or
 - d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

C. *Payment Becomes Due:*

- 1. ~~Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.~~



D. *Reduction in Payment:*

- 1. Owner may refuse to make payment of the full amount recommended by Engineer because:
 - a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;
 - b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;

- c. there are other items entitling Owner to a set-off against the amount recommended; or
 - d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.
2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor remedies the reasons for such action.
3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1 and subject to interest as provided in the Agreement.

14.03 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.

14.04 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner, Program Manager and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.
- B. Promptly after Contractor's notification, Owner, Contractor, Program Manager and Engineer shall make an inspection of the Work to determine the status of completion. If, after consulting with Program Manager, Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If, after consulting with Program Manager, Engineer considers the Work substantially complete, Engineer will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the tentative certificate to Owner, notify Contractor in writing, stating the reasons therefor. If, after consideration of Owner's objections, Engineer considers the Work substantially

complete, Engineer will, within said 14 days, execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.

- D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor, after consulting with Program Manager, a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.
- E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the tentative list.

14.05 *Partial Utilization*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, Program Manager and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:
 - 1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 14.04.A through D for that part of the Work.
 - 2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
 - 3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of

Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

14.06 *Final Inspection*

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.07 *Final Payment*

A. *Application for Payment:*

1. After Contractor has, in the opinion of Engineer, with consultation of the Program Manager, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments.
2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.6;
 - b. consent of the surety, if any, to final payment;
 - c. a list of all Claims against Owner that Contractor believes are unsettled; and
 - d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full,

Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

B. *Engineer's Review of Application and Acceptance:*

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. *Payment Becomes Due:*

1. Thirty days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and will be paid by Owner to Contractor.

14.08 *Final Completion Delayed*

- A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

14.09 *Waiver of Claims*

- A. ~~The making and acceptance of final payment will constitute:~~

1. ~~a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and~~
2. ~~a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.~~



ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION

15.01 *Owner May Suspend Work*

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to Contractor, Program Manager and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

15.02 *Owner May Terminate for Cause*

- A. ~~The occurrence of any one or more of the following events will justify termination for cause:~~
 1. ~~Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);~~
 2. ~~Contractor's disregard of Laws or Regulations of any public body having jurisdiction;~~
 3. ~~Contractor's repeated disregard of the authority of Engineer; or~~
 4. ~~Contractor's violation in any substantial way of any provisions of the Contract Documents.~~
- B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:
 1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site,



and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion);

2. incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere; and
 3. complete the Work as Owner may deem expedient.
- C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor no later than 45 days after the Owner has tabulated and paid all of the aforesaid expenses. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph, Owner shall not be required to obtain the lowest price for the Work performed.
- D. ~~Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.~~
- E. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.
- F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B and 15.02.C.

REFER TO S.C.

REFER TO S.C.

15.03 *Owner May Terminate For Convenience*

- A. Upon seven days written notice to Contractor, Program Manager and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;

2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;
 3. all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and
 4. reasonable expenses directly attributable to termination.
- B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 Contractor May Stop Work or Terminate

- A. ~~If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.~~
- B. ~~In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph.~~



ARTICLE 16 – DISPUTE RESOLUTION

16.01 Methods and Procedures

- A. Either Owner or Contractor may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Berks County Bar Association Mediation Rules in effect as of the Effective Date of the Agreement. Timely submission of the request shall stay the effect of Paragraph 10.05.E.
- B. Owner and Contractor shall participate in the mediation process in good faith in Berks County. The process shall be concluded within 60 days of filing of the request. The

date of termination of the mediation shall be determined by application of the mediation rules referenced above. In the event that the Owner and Contractor do not agree upon a mediation within ten (10) days of said request, both agree that the Berks County Bar Association will immediately appoint a mediator who will serve and comply with the aforementioned timeframe.

- C. ~~If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:~~
- ~~1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions; or~~
 - ~~2. agrees with the other party to submit the Claim to another dispute resolution process; or~~
 - ~~3. gives written notice to the other party of the intent to submit the Claim to a court of competent jurisdiction.~~



ARTICLE 17 – MISCELLANEOUS

17.01 *Giving Notice*

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:
1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended; or
 2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

17.02 *Computation of Times*

- A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Paragraph will be as effective as if repeated specifically in the

Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.04 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

17.05 *Controlling Law*

- A. This Contract is to be governed by the law of the state in which the Project is located.

17.06 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.



Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

SECTION 00 8000 – SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract, EJCDC C-700 (2007 Edition). All provisions which are not so amended or supplemented remain in full force and effect. If any of the following Supplementary Conditions is inconsistent or conflicts with any of the provisions or terms of the General Conditions, the Supplementary Condition shall control. All provisions of the General Conditions which are not so amended or supplemented by these Supplementary Conditions shall remain in full force and effect.

The terms used in these Supplementary Conditions have the meanings stated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof.

The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix “SC” added thereto.

SC-1.01 Defined Terms

SC-1.01 Add the following new paragraph immediately after Paragraph 1.01.A.51

52. *Program Manager* – Hill International, Inc., and its subcontractors.

SC-2.01 Delivery of Bonds and Evidence of Insurance

SC-2.01 Paragraph 2.01.B shall be deleted in its entirety and insert the following in its place:

B. *Evidence of Insurance*: Before any work at the site is started, Contractor shall deliver to Owner, with a copy to Engineer and Program Manager, Certificates of Insurance (and other evidence of insurance requested by Owner) which Contractor is required to purchase and maintain in accordance with Article 5.

SC-2.02 Copies of Documents

SC-2.02 Paragraph 2.02.A shall be deleted in its entirety and insert the following in its place:

A. The Engineer will furnish to Contractor up to two (2) sets of the Contract Documents. Additional sets of the Contract Documents may be obtained from the Engineer at cost specified below:

1. Additional bound copies of the Project Manual and Technical Specifications - \$100.00 per set.
2. Additional drawings - \$5.00 per sheet.

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

SC-2.03 Commencement of Contract Times: Notice to Proceed

SC-2.03 Paragraph 2.03.A shall be deleted in its entirety and insert the following in its place:

- A. The Contract Time shall commence on the date stated in the Notice to Proceed.

SC-2.07 Initial Acceptance of Schedules

SC-2.07.A.2. Add the following sentence at the end of 2.07.A.2:

The Schedule of Submittals shall provide that all submittals shall be due to Engineer no later than ten (10) days after the Contractor's receipt of notice that the Owner has elected to award the Alternate Number 1.

SC-3.03 Reporting and Resolving Discrepancies

SC-3.03.A.1 Paragraph 3.03.A.1 shall be deleted in its entirety and insert the following in its place:

1. Contractor's Review of Contract Documents Before Starting Work.
 - a. Contractor shall carefully examine the civil, architectural, plumbing, electrical, fire protection drawings and other Contract Drawings and Specifications. If any conflicts, inconsistencies, or discrepancies occur between and/or within the Drawings and Specifications, Contractor shall promptly report such a conflict, inconsistency, or discrepancy to Engineer in writing and obtain written instructions as to the manner in which to proceed. No departures from the Contract Documents shall be made without the prior written approval of Engineer and written notice to Owner.
 - b. Any conflict, inconsistency, or discrepancy shall be reported at least seven (7) days prior to submission of the Bid on the requisite, attached Bid Form. In the event that such conflicts, inconsistencies or discrepancies are not reported and a difference in quantity or quality is concerned, then, Engineer will make a selection, based on its sole judgment, and no additional compensation or extension of time will be allowed for Contractor.

SC-3.03.A.3 Paragraph 3.03.A.3 shall be deleted in its entirety.

SC-3.03.B Paragraph 3.03.B.1 and all of its subparagraphs shall be deleted in their entirety and insert the following in their place:

1. In the event of conflicts, inconsistencies or discrepancies between and/or within the Contract Documents and/or with applicable standards or Laws and Regulations, Contractor shall: (1) provide the better quality or greater quantity of Work or (2) comply with the more stringent requirement or (3) both, in accordance with Engineer's interpretation.
2. Except as provided in Paragraph 3.03.B.1, the following order of precedence shall be

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

followed. In the event of conflicts, inconsistencies, or discrepancies between and/or within the Contract Documents, interpretations will be based on the following order of priorities:

- a. The Agreement.
 - b. These Supplementary Conditions.
 - c. The General Conditions, as revised by Owner.
 - d. The Performance bond.
 - e. The Payment bond.
 - f. The Project Manual bearing the title "City of Reading Project #2012-02 Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project" consisting of the following:
 - i. All items defined in the Project Manual;
 - ii. All Reference Documents which are part of the Project Manual;
 - iii. All Attachments to the Project Manual; and
 - iv. All Addenda to the Project Manual (the later addenda bearing greater precedence over earlier versions).
 - g. All Technical Specifications and Drawings:
 - i. All Addenda to the Technical Specifications and Drawings (the later addenda bearing greater precedence over earlier versions);
 - ii. Large-scale Drawings shall supersede smaller-scale Drawings; and
 - iii. Dimensions shall govern over scaling of the Drawings.
3. In case of conflicts, inconsistencies, or discrepancies either in dimensions in the Drawings or in the Specifications, the latter shall be submitted to Engineer who will promptly make a determination in writing.
 4. In the case of a conflict, inconsistency, or discrepancy between and/or within the Drawings and Specifications not clarified by Addendum, the better quality or greater quantity of Work shall be provided in accordance with Engineer's interpretation.

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

SC-4.01 *Availability of Lands*

SC-4.01 Paragraph 4.01.A shall be deleted in its entirety and insert the following in its place:

- A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site and Contractor shall comply with the same in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities.

SC-4.02 *Subsurface and Physical Conditions*

SC-4.02 Paragraphs 4.02.A and 4.02.B shall be deleted in their entirety and insert the following in their place:

- A. Owner shall not be responsible for furnishing surveys or other information as to the physical characteristics of, legal limitations of or utility locations for the Site. Contractor shall confirm the location of each utility as required to perform the Work and as may be included in the Specifications. To the extent required for the execution of the Work, Owner shall only provide to Contractor such test borings and information that it has as to subsurface conditions and site geology. This data shall not constitute one of the Contract Documents. Owner does not assume any responsibility whatsoever with respect to the sufficiency or accuracy of any geotechnical report(s), borings made, or of the logs of test borings, or of other investigations, or of the interpretations or recommendations made thereof, and there is no warranty or guaranty, express or implied, that the conditions indicated by such geotechnical report(s), investigations, borings, logs or information are representative of those existing throughout the Site, or any part thereof, or that unforeseen developments may not occur. Contractor represents that it is familiar with the Site and has received all information it needs concerning the condition of the Site. Contractor represents that it has inspected the location of the Work and has satisfied itself as to the condition thereof, including, without limitation, all structural, surface and reasonably ascertainable subsurface conditions. Based upon the foregoing inspections, understandings, agreements and acknowledgments, Contractor agrees and acknowledges: (1) that the Contract Price is just and reasonable compensation for all Work, including, without limitation, foreseen and foreseeable risks, hazards and difficulties in connection therewith, and (2) that the Contract Time is adequate for the performance of the Work. Contractor shall have no claims for surface or reasonably ascertainable subsurface conditions encountered. Contractor shall exercise special care in executing subsurface Work in proximity of known subsurface utilities, improvements, and easements.
- B. Except as to any reported error, inconsistencies or omissions, and to concealed or unknown conditions, by executing the Agreement, Contractor represents the following:
1. The Contract Documents are sufficiently complete and detailed for Contractor to: (1) perform the Work required and to produce the results intended by the Contract Documents; and (2) comply with all requirements of the Contract Documents.

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

2. The Work required by the Contract Documents, including, without limitation, all construction details, construction means, methods, procedures, and techniques necessary to perform the Work, use of materials, selection of equipment, and requirements of product manufacturers are consistent with: (1) good and sound practices within the construction industry; (2) generally prevailing and accepted industry standards applicable to Work; (3) requirements of any warranties applicable to the Work; and (4) all applicable Laws and Regulations which bear upon the performance of the Work.
- C. Contractor shall, therefore, satisfy itself as to the accuracy of all dimensions and locations. In all cases of interconnection of its Work with existing or other Work, Contractor shall verify at the Site, all dimensions relating to such existing or other Work. Any errors due to Contractor's failure to verify all such locations or dimensions shall be promptly rectified by Contractor without any additional cost to Owner.
- D. Contractor shall take field measurements and verify field conditions and shall carefully compare such field measurements and conditions and other information known to Contractor with the Contract Documents before commencing activities. Errors, inconsistencies or omissions discovered shall be reported to Program Manager and Engineer at once.
- E. Before ordering any materials or doing any Work, Contractor and each Subcontractor shall verify measurements at the Site and shall be responsible for the correctness of such measurements. No extra charge by Contractor or compensation to Contractor will be allowed on account of differences between actual dimensions and the dimensions indicated on the Drawings. Any difference which may be found shall be submitted by Contractor to Engineer in writing for resolution before proceeding with the Work. If a minor change in the Work is found necessary due to actual field conditions, Contractor shall submit detailed drawings of such departure for the approval by Engineer before making the change.
- F. Prior to proceeding with any Work, and in sufficient time as not to delay the Work, Contractor shall:
1. Review, compare and analyze the Contract Documents and any information or surveys provided by Owner; and
 2. Inspect and check such portion of the Work for proper fit and matching with continuous Work and for proper coordination with other Work and the Work of Owner or of separate contractors; and
 3. Verify all dimensions and measurements with actual field conditions at the Project.
- G. Contractor shall immediately notify Owner, Program Manager, and Engineer of any errors, omissions or inconsistencies noted as the result of Contractor's activities under Paragraph 4.02. If Contractor knows or reasonably should know of any such error, omission or inconsistency and proceeds with the construction in question without first giving such notice, any claim for an adjustment to the Contract Price or the Contract Time shall be deemed waived and released and Contractor and its Surety shall assume all responsibility

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

and liability on a joint and several basis for such performance and shall indemnify Owner for all costs, expenses, losses and damages incurred by Owner, including, but not limited to, legal fees, costs, and expenses, incurred by Owner as the result thereof, including any cost to repair, correct or rework the construction in question.

SC-4.03 Differing Subsurface or Physical Conditions

SC-4.03 Paragraph 4.03.A.1 shall be deleted in its entirety.

SC-4.05 Reference Points

SC-4.05 The first sentence of Paragraph 4.05.A shall be deleted.

SC-4.06 Hazardous Environmental Conditions

SC-4.06.A Add the following subparagraph 4.06.A.1:

1. There are no reports/drawings regarding Hazardous Environmental Conditions at the Site that are applicable to the Work and known to Owner.

SC-4.06.G Paragraph 4.06.G shall be deleted in its entirety and insert the following in its place:

- G. Owner shall indemnify and hold harmless Contractor and its Subcontractors and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition was specifically caused by Owner. Nothing in this Paragraph 4.06.G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

SC-5.01 Performance, Payment, and Other Bonds

SC-5.01 The first sentence of Paragraph 5.01 shall be deleted in its entirety and insert the following in its place:

- A. Contractor shall furnish a performance bond and payment bond, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents.

SC-5.04 Contractor's Liability Insurance

SC-5.04 Add the following new paragraph immediately after Paragraph 5.04.B:

- C. The Contractor shall maintain the insurance products and coverage for not less than the following amounts (or greater where required by Laws and Regulations) as set forth below:

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

1. Workers' Compensation, and related coverages under paragraphs 5.04.A.1 and A.2 of the General Conditions:
 - a. State: Statutory
 - b. Applicable Federal (e.g., Longshoreman's): Statutory
 - c. Employer's Liability: \$500,000.00

2. Contractor's General Liability under paragraphs 5.04.A.3 through A.6 of the General Conditions which shall include completed operations and product liability coverages and eliminate the exclusion with respect to property under the care, custody and control of Contractor:
 - a. General Aggregate \$2,000,000.00
 - b. Products - Completed Operations Aggregate \$2,000,000.00
 - c. Personal and Advertising Injury \$1,000,000.00
 - d. Each Occurrence (Bodily Injury and Property Damage) \$1,000,000.00
 - e. Property Damage liability insurance will provide Explosion, Collapse, and Underground coverages where applicable.
 - f. Excess or Umbrella Liability
 - 1) General Aggregate \$2,000,000.00
 - 2) Each Occurrence \$2,000,000.00
 - g. Contractor's General Liability insurance shall provide coverage for loss or damage to all contents of the Project field offices supplied by Contractor for its own forces and the Engineer/Program Manager. Such contents may include, but are not limited to, office records, supplies, instruments, equipment, and personal property of the Engineer's and Program Manager's employees using the office.

3. Automobile Liability under paragraph 5.04.A.6 of the General Conditions:
 - a. Combined Single Limit of \$1,000,000.00

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

SC-5.06 Property Insurance

SC-5.06 Paragraph 5.06 shall be deleted in its entirety.

SC-5.07 Waiver of Rights

SC-5.07 Paragraphs 5.07.B and C shall be deleted in their entirety.

SC-5.09 Acceptance of Bonds and Insurance; Option to Replace

SC-5.09 Paragraph 5.09.A shall be deleted in its entirety and insert the following in its place:

- A. If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the Bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party. If Contractor does not purchase or maintain all of the bonds and insurance required by the Construction Documents, Owner may elect to obtain equivalent bonds or insurance and a Change Order shall be issued to reduce the Contract Price for the costs thereof.
- B. Contractor shall provide to Owner such additional information with respect to bonds and insurance provided as may reasonably be requested. Failure by Owner to give a notice of objection within the time provided above shall constitute acceptance of such insurance purchased by the Contractor as complying with the Contract Documents.

SC-6.01 Supervision and Superintendence

SC-6.01 Paragraph 6.01.B shall be deleted in its entirety and insert the following in its place:

- B. The Contractor's superintendent shall be on site full time until Substantial Completion of Contractor's Work and shall not be changed except with the consent of Owner and Program Manager, unless the superintendent ceases to be in Contractor's employ. If Contractor should at any time fail to provide adequate supervision and superintendence, as may be evidenced by incomplete, delayed or non-conforming Work, Owner may provide supervision and superintendence and the cost thereof, including, but not limited to, compensation for additional professional services, legal fees, or other costs or expenses incurred, shall be charged to Contractor in the form of a Change Order incorporating an appropriate reduction in the Contract Price. If the payments due to Contractor are not sufficient to cover such amount, Contractor shall pay the difference to Owner. Owner, Engineer and/or Program Manager shall have the right to dismiss from the Project any superintendent whose performance is not satisfactory in the sole discretion of Owner. If during the course of the Project it is evident that the superintendent is not competent or is not managing the progress of the Project or is not coordinating the various trades, entities, and/or persons under his supervision, then Program Manager will document such findings to Contractor. If within ten (10) days of receiving such notice, no substantial effort or correction of the finding is made known to Program Manager, then Engineer, as requested by Owner, may require the immediate replacement of the superintendent with an acceptable one at no additional cost to Owner.

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

C. Contractor shall remove from the Project such employees of Contractor or of any Subcontractor as Owner requests be removed, with or without a reason. Contractor shall require Contractor's employees, Subcontractors and their agents and employees, and other persons performing portions of the Work under a contract with Contractor to comply with the following requirements:

1. Smoking and other use of tobacco is prohibited in buildings owned by or under the control of Owner.
2. Using the building facilities, e.g., lunchroom, toilets, etc. is prohibited.
3. Making any remarks to passing individuals that violate decency or cause embarrassment to that individual or Owner is prohibited.

SC-6.08 *Permits*

SC-6.08 The first sentence of paragraph 6.08.A shall be deleted in its entirety and the following inserted in its place:

“Contractor shall obtain and pay for all permits and licenses necessary or required by applicable Laws and Regulations Work.”

SC-6.09 *Laws and Regulations*

SC-6.09 The last sentence in Paragraph 6.09.B shall be deleted. Paragraph 6.09.C shall be deleted in its entirety.

SC-6.10 *Taxes*

SC-6.10 Add a new paragraph immediately after Paragraph 6.10.A:

B. Owner is exempt from payment of sales and compensating use taxes of the Commonwealth of Pennsylvania and of cities and counties thereof on all materials to be incorporated into the Work.

1. Owner will furnish the required certificates of tax exemption to Contractor for use in the purchase of supplies and materials to be incorporated into the Work.
2. Owner's exemption does not apply to construction tools, machinery, equipment, or other property purchased by or leased by Contractor, or to supplies or materials not incorporated into the Work.

SC-6.13 *Safety and Precautions*

SC-6.13 The following paragraphs shall be added immediately following Paragraph 6.13.F:

G. Prior to performing any Work at the Site, Contractor shall submit to Program Manager with a copy to the Engineer its Project Safety and Health Program fully describing Contractor's commitments for meeting its obligations to provide safe and healthy

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

working conditions for its employees, and generally contribute and enhance safety at the Site. Contractor's program shall reference federal and state OSHA standards and other rules and regulations applicable to construction activities on the Project. Contractor's Project Safety and Health Program shall include, without limitation, as a minimum, the following:

1. **New Hire Safety and Orientation Program:** Each new or reassigned employee of Contractor shall receive a thorough safety orientation including, without limitation, employer/employee responsibilities under federal/state OSHA regulations, ear protection in high noise level areas, respiratory protection, Material Safety Data Sheets (MSDS), fire protection, first aid facilities, and lock out procedures on electrical equipment. Attendance at the New Hire Safety and Orientation Program meeting is required and records must be kept on file in Contractor's office for review.
2. **Weekly Tool Box Safety Meetings:** Contractor shall conduct Weekly Tool Box Safety Meetings to provide employees with current safety information. Attendance is required and records must be kept on file in Contractor's office for review.

SC-6.17 Shop Drawings and Samples

SC-6.17 The words "and approved" shall be deleted from Paragraphs 6.17.A.; 6.17.B; 6.17.D.1; 6.17.D.2; and 6.17.D.3.

SC-6.19 Contractor's General Warranty and Guarantee

SC-6.19 The words "and approved" shall be deleted from Paragraph 6.19.C

SC-6.20 Indemnification

SC-6.20 Paragraph 6.20.A shall be deleted in its entirety and insert the following in its place:

- A. To the fullest extent permitted by law, Contractor shall indemnify, hold harmless and defend Owner, Engineer and Program Manager and including their consultants, agents, employees, officers, elected officials, affiliates and attorneys (collectively, the "Indemnified Parties") from and against claims, damages, losses and expenses, including, but not limited to, injuries to Contractor's employees, legal fees and defense costs, penalties, fines or losses arising out of or resulting from performance of the Work, but only to the extent caused, in whole or in part, by the acts or omissions of Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts or omissions they may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge or reduce other rights or obligations of indemnity which would otherwise exist as to a party or person described in this Paragraph 6.20.A. Contractor agrees to and does hereby assume on behalf of Owner, Engineer, and Program Manager the defense of any action, at law or in equity, which may be brought against such Indemnified Parties, upon their demand, and pay the amount of any judgment that may be entered against such Indemnified Parties in

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

any such action. In the event that any such claim, loss, cost, expense, liability, damage or injury arises or is made, asserted or threatened against Owner for which Contractor or its insurer does not admit coverage, or if Owner reasonably determines such coverage to be inadequate, Owner shall have the right to withhold from Contractor any payments due or to become due to Contractor in an amount sufficient to protect Owner from such claim, loss, cost, expense, liability, damage or injury, including, but not limited to, legal fees and expenses reasonably necessary for the defense thereof.

SC-6.22 Contractor's Representations and Warranties

SC-6.22 Add the following new paragraphs immediately after Paragraph 6.21.E:

6.22 Contractor's Representations and Warranties

A. Contractor represents and warrants the following to Owner (in addition to the other representations and warranties contained in the Contract Documents), as an inducement to Owner to execute Owner Contractor Agreement, which representations and warranties shall survive the execution and delivery of Owner Contractor Agreement and the Final Completion of the Work:

1. that it is financially solvent, able to pay its debts as they mature and possess sufficient working capital to complete the Work and perform its obligations under the Contract Documents;
2. that it is able to furnish the personnel, tools, materials, supplies, equipment and labor required to complete the Work and perform its obligations hereunder and has sufficient experience and competence to do so;
3. that it is authorized to do business in the Commonwealth of Pennsylvania and is properly licensed by all necessary governmental and public and quasi public authorities having jurisdiction over it and over the Work and the site of the Project;
4. that its execution of the Agreement and its performance thereof is within its duly authorized powers;
5. that it is familiar with all Federal, State and Municipal Laws and Regulations, which may in any way affect the Work of those employed herein, including, but not limited to, any special acts relating to the Work or to the Project of which it is a part;
6. that such temporary and permanent Work required by the Contract Documents as is to be done by it, can be satisfactorily constructed and used for the purposes for which it is intended, and that such construction will not injure any person or damage any property;
7. that it is familiar with local trade jurisdictional practices at the site of the Project;

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

8. that it has carefully examined the Plans, the Specifications and the Site of the Work, and that, from its own investigation, it has satisfied itself as to the nature and location of the Work, the character, quality and quantity of the surface and subsurface materials likely to be encountered, the character of equipment and other facilities needed for the performance of the Work, and the general local conditions, and all other materials which may in any way affect the Work or its performance; and
9. that it has determined what local ordinances, if any, will affect its Work. Contractor has checked for any County, City, Borough, or Township rules or regulations applicable to the area in which the Project is being constructed and in addition, Contractor has checked for any rules or regulations of other organizations having jurisdiction, including, but not limited to, chambers of commerce, planning commission, industries, or utility companies who have jurisdiction over lands which Contractor occupies. All costs of compliance with local controls are included in the prices bid, even though documents of such local controlling agencies are not listed herein.

SC-7.01 *Related Work at Site*

SC-7.01 Add the following new paragraph immediately after Paragraph 7.01.C:

- D. Contractor shall not be relieved of its responsibility for performing any Work by showing that a separate contractor has, or should have, responsibility to perform the same portion of the Work. Disputes concerning who, as between Contractor and a separate contractor, must perform a particular aspect of the Work or comply with a particular requirement shall be determined by Engineer, whose decision shall be final and binding upon Contractor and, if so provided in the separate contractor's contract for construction, upon the separate contractor. If Engineer decides that the particular aspect or requirement is within the scope of Work of both Contractor and a separate contractor, Engineer shall decide which shall perform the Work and which shall give Owner a credit to the Contract Price for omitting the Work.

SC-7.03 *Legal Relationship*

SC-7.03 Add the following new paragraph immediately after Paragraph 7.03.C:

- D. Contractor shall promptly remedy damage Contractor, either itself or by its Subcontractor or Sub-Subcontractors or their respective agents, servants, or employees, causes to completed or partially completed construction or to property of Owner or its separate contractors. Contractor agrees to defend, indemnify and hold harmless Owner, Program Manager and Engineer and the consultants, agents and employees of any of them from and against any claims or damages brought by a separate contractor arising out of actions or omissions of Contractor, Subcontractors, sub-subcontractors or suppliers in performing its Work under the Contract Documents.

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

SC-7.04 *Claims Between Contractors*

SC-7.04 Add the following new paragraph immediately after Paragraph 7.03:

7.04 *Claims Between Contractors*

- A. Should Contractor, either itself or by its Subcontractor or Sub-Subcontractors or their respective agents, servants, or employees, cause damage or injury to the property or Work of other contractors, or by failing to perform Work (including, without limitation, the Work of its Subcontractor or sub-Subcontractors) with due diligence, delay any other contractor or Subcontractor, which causes a dispute related to the additional expense or damage resulting therefrom, the parties involved in such dispute and their respective Sureties shall resolve said dispute as set forth below. It is agreed by all parties that claims, disputes or actions between or among Contractor or its Sureties and Subcontractors or other contractors concerning the additional expense or damage shall not delay completion of the Work, which shall be continued by the parties, subject to the rights herein. It is agreed by the parties to this Agreement (Owner as promisee and Contractor as promisor) that the intent of Paragraph 7.04 is to benefit Contractor and its Sureties on the Project and to serve as an indication of the mutual intent of Owner and Contractor that this clause raise such other contractors to the status of third party beneficiaries only as to the terms and conditions of Paragraph 7.04. Contractor agrees that the provisions in this Paragraph 7.04 are provided as a benefit to Contractor and, that they specifically exclude claims, disputes or actions against Owner for delay or other damages.
- B. Contractor agrees that all claims, disputes and other matters in question between it and other contractors, their Sureties or Subcontractors, which arise out of, or are related to Work or this Agreement, or the breach thereof, shall be settled by agreement or resolved by arbitration, in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association then in effect, unless the parties mutually agree otherwise. This agreement to arbitrate is in consideration of the fact that Owner's other contractors agree to this same arbitration provision, and is specifically enforceable under the prevailing arbitration law. The award rendered by the arbitrators shall be final, and judgment may be entered upon it in accordance with applicable Laws and Regulations in any court having jurisdiction thereof. Owner shall not be a party to this arbitration.
- C. Notice of the demand for arbitration shall be filed in writing with the other contractor(s) and with the Regional Office of the American Arbitration Association. A copy of the demand shall be filed with Program Manager and Owner. The demand for arbitration shall be made within thirty (30) days after the claim, dispute or other matter in question has arisen. Owner shall not be a party to the claim, dispute or other matter in question, but will be a witness in any arbitration at the request of any party to the arbitration. Contractor shall contemporaneously provide Owner with copies of all documents submitted to the arbitrator at no cost to Owner.
- D. Contractor hereby agrees that Contractor's sole remedy for including, without limitation, injuries, damages or expenses resulting from disputes between other contractors, Sureties or Subcontractors will be to seek recovery from the other contractors, Sureties or Subcontractors for the transgressions of such other contractors, Sureties or Subcontractors.

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

Contractor hereby further agrees that it shall have no recourse against Owner for the transgressions of other contractors, Sureties or Subcontractors that result in including, without limitation, delay, acceleration, out-of-sequence Work, overtime, stacking of trades, failure to adequately clean the work areas, disputes over the scope of Contractor's Work, or disputes between contractors, Sureties or Subcontractors regarding any other matter concerning the Project.

- E. Contractor acknowledges that the restrictions contained in the General and Supplementary Conditions are reasonable and necessary in order to protect the legitimate interests of Owner and that any violation of these General Conditions would result in irreparable injuries to Owner and monetary damages would be inadequate to compensate Owner for a violation of the General Conditions or Supplementary Conditions. Therefore, Contractor hereby agrees that if Contractor disregards any paragraph of the General Conditions or Supplementary Conditions, including, without limitation, any portion of this Paragraph 7.04, and institutes or attempts to institute any proceeding (e.g., arbitration, litigation, mediation, etc.) against Owner for including, without limitation, injuries, damages or expenses resulting from disputes between contractors, Sureties or Subcontractors, Owner is entitled to obtain from any court of competent jurisdiction preliminary and permanent injunctive relief to prevent Contractor from pursuing any proceeding against Owner and Owner is entitled to stay any such proceeding. In the event that Owner pursues preliminary or permanent injunctive relief to prevent Contractor from pursuing any proceeding against Owner or that Owner attempts to stay any such proceeding, Contractor and Contractor's Surety shall be jointly and severally liable for and shall reimburse Owner immediately upon demand for including, without limitation, all legal fees, professional fees and all other costs associated therewith incurred by Owner. Owner's rights set forth in Paragraph 7.04 shall be in addition to all other rights of Owner granted in the Contract Documents, at law, or in equity.
- F. Program Manager and Engineer shall not be a party to claims, disputes or actions which are solely between Contractor, its Sureties or Subcontractors and/or which arise out of, or are related to this Agreement or the Contractor, its Sureties or Subcontractors breach thereof.
- G. In case any direct or indirect injury is done to existing street or underground structures sewers, mains, or to public or private property of any kind, or to any materials or fixtures, by or because of the Work, in consequence of any act or omission on the part of Contractor, its employees or agents, Contractor, at its own cost and expense, except where hereinafter specified otherwise, shall restore such structures, property, or materials to a condition equal to or similar to that existing before such damage or injury was done, by repairing, rebuilding, or otherwise as may be required by Engineer. To the extent that Contractor fails or refuses to meet the requirements of this Paragraph 7.04 and such failure and/or refusal results in Owner incurring additional legal fees, professional fees, other cost or expenses, Contractor shall be liable for the same.
- H. If Contractor fails to restore such property or make good such damage, Owner may, by contract or otherwise, proceed to repair, rebuild, or otherwise restore such property as may be necessary, and the cost thereof will be deducted from any money due, or to become due, Contractor under this Contract; or Owner may deduct from any money due Contractor a sum sufficient to reimburse Owner of property so damaged. If the amount owed is not

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

sufficient to reimburse Owner, Contractor will pay Owner said amount immediately upon demand.

SC-8.11 *Evidence of Financial Arrangements*

SC-8.11 Paragraph 8.11 shall be deleted in its entirety.

ARTICLE 9 ENGINEER AND PROGRAM MANAGER

SC-9 Article 9 and its subparagraphs shall be deleted in their entirety and insert the following in their place:

9.01 Owner's Representatives

- A. Program Manager and Engineer will be Owner's representative during the construction period. The duties, responsibilities and limitations of authority of Program Manager and Engineer as Owner's representative during construction are set forth in the Contract Documents.
- B. Owner shall retain an engineer lawfully licensed to practice engineering or an entity lawfully practicing engineering in the jurisdiction where the Project is located. That person or entity is identified as the Engineer in the Agreement and is referred to throughout the Contract Documents as if singular in number.
- C. Duties, responsibilities and limitations of authority of the Program Manager and Engineer as set forth in the Contract Documents shall not be restricted, modified or extended without written consent of Owner, Program Manager, Engineer and Contractor. Consent shall not be unreasonably withheld.
- D. If the employment of the Program Manager or Engineer is terminated, the Owner, in its sole discretion, will employ a successor Program Manager or Engineer and the Contractor hereby consents to the aforesaid appointment and consents that the status under the Contract Documents shall remain the same.

9.02 Administration of the Contract

- A. The Program Manager and Engineer will provide administration of the Contract as described in the Contract Documents and will be Owner's representatives during construction until the date the Engineer issues the final Certificate for Payment. The Program Manager and Engineer will have authority to act on behalf of Owner only to the extent provided in the Contract Documents.
- B. The Engineer will visit the site at intervals appropriate to the stage of construction, or as otherwise agreed with Owner, to become generally familiar with the progress and quality of the portion of the Work completed, and to determine in general if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Engineer will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

Work. On the basis of the site visits, the Engineer will keep Owner reasonably informed about the progress and quality of the portion of the Work completed, and report to Owner and Program Manager (1) known deviations from the Contract Documents and from the most recent Project schedule prepared by the Program Manager, and (2) defects and deficiencies observed in the Work.

- C. The Program Manager shall provide a staffing plan to include one or more representatives who shall be in attendance at the Site whenever the Work is being performed or shall otherwise be available upon request. The Program Manager will determine in general if the Work observed is being performed in accordance with the Contract Documents, will keep Owner reasonably informed of the progress of the Work, and will report to Owner and Engineer (1) known deviations from the Contract Documents and the most recent Progress Schedule, and (2) defects and deficiencies observed in the Work.
- D. The Program Manager will coordinate the activities of Contractor and other contractors in accordance with the latest approved Progress Schedule.
- E. The Program Manager, except as specifically set forth herein, and Engineer will not have control over, or charge of, construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work, since these are solely Contractor's rights and responsibilities under the Contract Documents, and neither will be responsible for Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. Neither the Program Manager nor the Engineer will have control over or charge of or be responsible for acts or omissions of Contractor, Subcontractors, or their agents or employees, or of any other persons or entities performing portions of the Work.

9.03 Communications Facilitating Contract Administration

- A. Except as otherwise provided in the Contract Documents or when direct communications have been specially authorized, Owner and Contractor shall endeavor to communicate with each other through the Program Manager, and shall contemporaneously provide the same communications to the Engineer about matters arising out of or relating to the Contract Documents. Communications by and with the Engineer's consultants shall be through the Engineer. Communications by and with Subcontractors and material suppliers shall be through Contractor. Communications by and with other contractors shall be through the Program Manager and shall be contemporaneously provided to the Engineer if those communications are about matters arising out of or related to the Contract Documents. Communications by and with Owner's own forces shall be through Owner.
- B. The Program Manager and Engineer will review all Applications for Payment by Contractor.
- C. The Engineer, after consultation with the Program Manager, will have the authority to reject Work that does not conform to the Contract Documents and will notify each other about the rejection. However, neither the Engineer's nor the Program Manager's authority to act under Paragraph 9.03.C nor a decision made by either of them in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

Engineer or the Program Manager to Contractor, Subcontractors, material and equipment suppliers, their agents or employees, or other persons performing any of the Work.

- D. Engineer will receive and promptly review for conformance with the submittal requirements of the Contract Documents, all submittals from Contractor such as Shop Drawings, Product Data and Samples. Where there are other contractors, the Program Manager will coordinate the information contained within each submittal received from Contractor and other contractors, and transmit to the Engineer those recommended for approval. By submitting Shop Drawings, Product Data, Samples and similar submittals, the Contractor represents to Program Manager and Engineer that the Contractor has reviewed and recommended them for approval. The Contractor's actions will be taken in accordance with the Schedule of Submittals approved by the Engineer or, in the absence of an approved Schedule of Submittals, with reasonable promptness while allowing sufficient time to permit adequate review by the Engineer.
- E. The Engineer will review and take other appropriate action upon Contractor's submittals such as Shop Drawings, Product Data and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Engineer's action will be taken in accordance with the Schedule of Submittals approved by the Engineer or, in the absence of an approved Schedule of Submittals, with reasonable promptness while allowing sufficient time in the Engineer's professional judgment to permit adequate review. Upon the Engineer's completed review, the Engineer shall transmit its submittal review to the Program Manager.
- F. Review of Contractor's submittals by the Program Manager and Engineer is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of Contractor. The Program Manager's and Engineer's review of Contractor's submittals shall not relieve Contractor of its obligations under the Contract Documents. The Program Manager's and Engineer's review shall not constitute approval of safety precautions or, unless otherwise specifically stated by the Program Manager and Engineer, of any construction means, methods, techniques, sequences or procedures. The Engineer's approval of a specific item shall not indicate approval of an assembly of which the item is a component.
- G. The Engineer will prepare Change Orders and Work Change Directives.
- H. The Program Manager and the Engineer will take appropriate action on Change Orders or Work Change Directives in accordance with the Contract Documents and the Engineer will have authority to order minor changes in the Work. The Engineer, in consultation with the Program Manager, will investigate and make determinations and recommendations regarding concealed and unknown conditions.
- I. The Program Manager will assist the Engineer in conducting inspections to determine the dates of Substantial Completion and the date of final completion; issue Certificates of Substantial Completion in conjunction with the Engineer; and receive and forward to

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

Owner written warranties and related documents required by the Contract and assembled by Contractor.

- J. If Owner and Engineer agree, the Engineer will provide one or more project representatives to assist in carrying out the Engineer's responsibilities at the site. The Resident Project Representative will be Engineer's employee or agent at the Site, will act as directed by and under the supervision of Engineer, and will confer with Engineer regarding the Resident Project Representative's actions. The Resident Project Representative's dealings in matters pertaining to the Work in general shall be with Engineer and Contractor. The Resident Project Representative's dealings with Subcontractors shall be through or with the full knowledge and approval of Contractor. The Resident Project Representative shall not:
1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).
 2. Exceed limitations of Engineer's authority as set forth in the Contract Documents.
 3. Undertake any of the responsibilities of Contractor, Subcontractors, suppliers, or Contractor's superintendent.
 4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of Contractor's work unless such advice or directions are specifically required by the Contract Documents.
 5. Advise on, issue directions regarding, or assume control over safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.
 6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.
 7. Accept Shop Drawing or Sample submittals from anyone other than Contractor.
 8. Authorize Owner to occupy the Project in whole or in part.
- K. The Engineer will interpret and decide matters concerning performance under, and requirements of the Contract Documents on written request of the Program Manager, Owner or Contractor through the Program Manager. The Engineer's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness.
- L. Interpretations and decisions of the Engineer will be consistent with the intent of and reasonably inferable from the Contract Documents and will be in writing or in the form of drawings. When making such interpretations and decisions, the Engineer will endeavor to secure faithful performance by both Owner and Contractor, will not show partiality to either and will not be liable for results of interpretations or decisions so rendered in good faith.

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

- M. The Engineer's decisions on matters relating to aesthetic effect will be final if consistent with the intent expressed in the Contract Documents.
- N. The Program Manager will receive and review requests for information from Contractor, and forward each request for information to the Engineer, with the Program Manager's recommendation. The Engineer will review and respond in writing to the Program Manager to requests for information about the Contract Documents. The Program Manager's recommendation and the Engineer's response to each request will be made in writing within any time limits agreed upon or otherwise with reasonable promptness. If appropriate, the Engineer will prepare and issue supplemental Drawings and Specifications in response to the requests for information.

SC-10.03 Execution of Change Orders

SC-10.03 Add the following new paragraphs immediately after paragraph 10.03.A.3:

- B. Notwithstanding anything contained in the Contract Documents to the contrary, a change in the Contract Price, the Contract Time and/or any Milestone Date shall be accomplished only by Change Order or by a Work Change Directive. No course of conduct or dealing between the parties, no express or implied acceptance of alterations or additions of the Work and no claim that Owner has been unjustly enriched by any alteration or addition to the Work shall be the basis of any claim or adjustment in compensation due under the Contract and/or time period provided for under the Contract.
- C. Agreement on any Change Order shall constitute a final settlement of all direct and indirect costs associated with such change and any and all adjustments to the Contract Price and the Progress Schedule. In the event a Change Order increases the Contract Price, Contractor shall include the Work covered by such Change Order in Applications for Payment as if such Work were originally part of the Contract Documents. Present or future claims by Owner relating to defective performance of the Work shall not be deemed settled through agreement on a Change Order unless so expressly agreed in writing.
- D. To the extent that any Contractor makes an excessive number of Change Order requests, which excessiveness, shall be determined solely in the discretion of Owner, Owner shall have the authority in its sole discretion, to disregard any subsequent Change Order requests made by such Contractor on the same or similar scope of services and Contractor's sole remedy against Owner under this Agreement shall be pursuant to Paragraph 10.05. Furthermore, to the extent Owner incurs any legal fees, professional fees, expenses or costs (including, but not limited to, employee costs), arising out of or resulting from Contractor making an excessive number of Change Order requests, Contractor shall be liable for such legal fees, professional fees, expenses and costs.
- E. Any action(s) by Owner, Program Manager, Engineer and/or Contractor other than actions taken pursuant to the procedures set forth herein shall not constitute the approval of a Change Order, including, without limitation, Owner's, Program Manager's and/or Engineer's execution of Contractor's time sheets upon which Contractor

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

submits a Change Order request. Furthermore, to the extent Owner incurs any legal fees, professional fees, expenses or costs (including, but not limited to, employee costs), arising out of or resulting from Contractor's failure to follow the proper procedures for approval of a Change Order, Contractor shall be liable for such legal fees, professional fees, expenses and costs.

- F. So as not to unduly delay the Project when a Contractor's Change Order request has not been approved pursuant to the procedures set forth herein within thirty (30) days of Contractor's submittal of such Change Order, or where the parties cannot agree as to the amount of compensation for a Change Order, Contractor shall continue to perform its services and Contractor's sole remedy against Owner under this Agreement shall be pursuant to Paragraph 10.05.

SC-10.05 Claims

SC-10.05 Add the following new paragraphs immediately after Paragraph 10.05.F:

- G. Contractor waives Claims against Owner for consequential damages and/or incidental damages arising out of or relating to this Contract. This waiver includes: (1) damages incurred for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and (2) damages incurred for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit except anticipated profit arising directly from the Work. This waiver is applicable, without limitation, to all consequential damages and/or incidental damages due to either party's termination in accordance with Article 15. Notwithstanding anything else to the contrary in the Contract Documents, Owner shall have the right to recover liquidated damages, consequential damages and/or incidental damages from Contractor to the extent permitted by law and the Contract Documents.
- H. No claim for an increase in the Contract Price or change in the Contract Time shall be based on constructive acceleration. Accordingly, no course of conduct or dealings between the parties, or any express or implied statements made by the parties, nor any express or implied acceptance of alterations to the Work, and no claim that Owner has been unjustly enriched by any alteration or addition to the Work, whether or not there is in fact any such unjust enrichment, shall be the basis for any claim to an increase in the Contract Price or change in the Contract Time.
- I. Contractor shall have no claim or right of recovery of damages against Owner, Engineer and/or Program Manager for economic loss sustained, in whole or in part, by any act or omission of Owner, Engineer and/or Program Manager to the extent that such act or omission constitutes a breach of contract. Specifically, and without limiting the generality of the foregoing, Contractor shall have no claim against Owner, Engineer and/or Program Manager for economic loss based upon any tort, including, without limitation, negligence, negligent misrepresentation or any other tort-based theory of liability.

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

SC-11.02 Cash Allowances

SC-11.02 Paragraphs 11.02.B and 11.02.C and all of their subparagraphs shall be deleted in their entirety and insert the following in their place:

1. No cash allowances for any purpose are included in the Project Manual and Contract Documents of this Project.

SC-12.01 Change of Contract Price

SC-12.01 Paragraph 12.01.C and all of its subparagraphs shall be deleted in their entirety and insert the following in their place:

- C. Contractor's fee for the combined overhead and profit that may be included (but shall not be exceeded) in the total cost to Owner shall a mutually acceptable fixed fee or otherwise based on the following schedule:
1. For Contractor, for Work performed by Contractor's own forces, ten percent (10%) of the cost.
 2. For Contractor, for Work performed by Contractor's Subcontractor, five percent (5%) of the amount due the Subcontractor.
 3. For each Subcontractor or sub-Subcontractor involved, for Work performed by the Subcontractor's or sub-Subcontractor's own forces, five percent (5%) of the cost.
 4. No fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, or 11.01.B.
 5. In order to facilitate checking of quotation for extras or credits, all proposals, except those so minor that their propriety can be seen by inspection, shall be accompanied by a complete itemization of costs including, without limitation, labor, materials, equipment and Subcontracts. Labor and materials shall be itemized in the manner prescribed above. Where major cost items are Subcontracts, they shall be itemized also. In no case will a change involving an amount greater than or equal to Two Hundred Dollars (\$200) be approved without such itemization.
 6. When both additions and deductions are involved in any one Change Order or Work Change Directive, the allowance for overhead and profit shall be figured on the basis of the net increase, if any.

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

SC-12.03 Delays

SC-12.03.A Add the following paragraphs immediately after Paragraph 12.03.A

1. No extension of Contract Time will be considered or approved if the act or occurrence constituting the basis of the request or claim is for nondelivery of materials due to any act or neglect of Contractor, or the failure of Contractor to employ, furnish or obtain, as necessary for the timely prosecution of the Work, Shop Drawings, sufficient labor, materials or equipment, or other matters which shall be within the control of Contractor. Any delay which results due to any of the foregoing causes shall be the sole responsibility of Contractor.
2. No payment or compensation will be made to Contractor as compensation for damages for any delays or hindrances from any cause whatsoever in the progress of the Work, notwithstanding whether such delays be avoidable or unavoidable. Contractor's sole remedy for delays shall be an extension of Contract Time, pursuant to and only in accordance with Paragraph 12.02. Such extension shall be a period equivalent to the time lost, day for day, by reason of any and all of the aforesaid causes. Nor will Contractor be permitted to make any claim for acceleration or for costs or expenses associated with acceleration nor will Contractor be permitted to make a claim for out-of-sequence work (e.g., winter protection costs). In the event that Contractor chooses to assert such a claim for delay, acceleration or out-of-sequence work, or litigate this provision, and Contractor fails to prevail as to its entire claim in its litigation, Contractor shall be liable to Owner and shall reimburse Owner, Program Manager, and Engineer for any legal fees, professional fees, costs or expenses associated with analyzing, defending or otherwise opposing any such claim or litigation.
3. Owner shall not be liable to Contractor for any expenses, damages, loss of profits (anticipated or otherwise) or charges of any nature whatsoever (including, but not limited to, legal fees and professional fees) which shall result because of any extension of the time of completion which is granted by Owner to Contractor or to any other contractor employed by Owner to perform any other portion of the Project, or which shall result because of any delay or hindrance of any nature whatsoever in the progress of the Work (e.g., winter protection costs), whether such delay or hindrance shall be avoidable or unavoidable. In the event Contractor chooses to litigate and fails to prevail as to its entire claim in its litigation, Contractor shall reimburse Owner, Program Manager, and Engineer for any legal fees, professional fees and all other costs and expenses associated with analyzing, defending or otherwise opposing any such claim or litigation.
4. No extension of Contract Time granted by Owner shall be or shall be deemed to be a waiver by Owner of any rights accruing to it under the Contract Documents and no extension of Contract Time granted by Owner

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

shall relieve or shall be deemed to relieve Contractor from full responsibility for performance of the Work.

5. Should Owner be prevented or enjoined from proceeding with the Project either before or after the start of construction by reason of any litigation or any other reason beyond the control of Owner, Contractor shall not be entitled to make or assert claims for damage by reason of said delay, or for acceleration or out-of-sequence work; but time for completion of the Work will be extended to such reasonable time as Owner, Program Manager and Engineer may determine will compensate for time lost for such delay with such determination to be set forth in writing.
6. Any delay attributable to lack of coordination or cooperation by and/or between Contractor and any other contractor among themselves or their Subcontractors, will not be recognized by Owner as a basis for any claim for increasing any Contract Price, but shall be resolved as provided in Paragraph 7.04.

SC-12.03.B Paragraph 12.03.B shall be deleted in its entirety.

SC-13.03 Tests and inspections

SC-13.03 Add the following paragraph immediately after Paragraph 13.03.F:

- G. If such procedures for testing, inspection or approval reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, then Contractor shall be responsible for any legal fees, professional fees, or other costs or expenses incurred by Owner as a result thereof, including, without limitation, costs of repeated procedures and compensation for Program Manager's and Engineer's services and expenses. Such amounts may be deducted, to the extent available, from any amount due to Contractor. If the amount due to Contractor is not sufficient to cover such amounts, Contractor shall pay the difference to Owner within seven (7) days of receipt of Owner's invoice for such legal fees, professional fees or other cost or expenses.

SC-14.01 Schedule of Values

SC-14.01 Add the following paragraphs immediately after Paragraph 14.01.A:

- B. If the Work has been 50 percent completed as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage withheld from subsequent payments (provided that the Owner will not release the retainage already withheld until Substantial Completion. Notwithstanding the foregoing, Owner may continue to withhold ten percent (10%) of the amount due Contractor after the Project is fifty percent (50%) completed if Engineer or Program Manager provides written notification to Owner of a specific cause for greater withholding or if Owner determines in its sole discretion that

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

there is a specific cause for greater withholding. A specific cause for greater withholding shall include, without limitation, the following:

1. Contractor's inability to produce evidence satisfactory to Program Manager and/or Owner evidencing payments for materials, labor and/or payments to Subcontractors, manufacturers or suppliers;
2. The existence of a dispute between Owner and Contractor regarding increased costs claimed by such Contractor; or
3. A Contractor's failure to complete the Work in accordance with the Contract Documents, including, without limitation, the Drawings and Specifications, etc.

C. In addition to Owner's right to determine if a specific cause for greater withholding exists, Engineer shall also be entitled to determine if a specific cause for greater withholding exists. Engineer shall reject the reduction in retainage if Contractor is not making satisfactory progress in its Work or if Engineer determines that there is a specific cause for greater withholding. Engineer's decision to reject a reduction of retainage shall be final and binding on Contractor. Engineer will consider the following items when reviewing a request for reduction in retainage and failure to meet any of the following requirements may be considered by Engineer as sufficient grounds for rejecting a reduction of retainage:

1. Satisfactory performance of the Work.
2. Satisfactory maintenance of the Progress Schedule.
3. Proper manning of the Project.
4. Satisfactory completion of the Work.
5. Satisfactory organization of the Project.
6. Proper organization and coordination of subcontractors.
7. Proper coordination with other contractors.
8. All defective Work has been remedied or is in the process of being remedied.
9. Work completed is not in contention.
10. Satisfactory follow through of paperwork, certified payrolls, Change Order proposals, or Work Change Directives.

D. In the event a dispute arises between Owner and a Contractor, Owner shall have the option as it deems necessary in its sole discretion to either continue to withhold ten percent (10%) of the amount due Contractor or to withhold additional retainage over

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

and above the amount already retained by Owner in the sum of one and one half (1.5) times the amount of any possible liability until such time as a final resolution is agreed to by all parties directly or indirectly involved, unless Contractor causing the additional claim furnishes a bond satisfactory to Owner to indemnify Owner against the claim.

SC-14.02 *Progress Payments*

SC-14.02.A Add the following sentence to Paragraph 14.02.A.1:

No credit or payment shall be made for stored material.

SC-14.02.C Paragraph 14.02.C.1 shall be deleted in its entirety and insert the following in its place:

C. Payment Becomes Due:

1. Forty-five (45) days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

SC-14.09 *Waiver of Claims*

SC-14.09 Paragraph 14.09.A and its subparagraphs shall be deleted in their entirety and insert the following in their place:

- A. The making of any payment, including, but not limited to the final payment, shall not constitute a waiver of Claims by Owner.
- B. Acceptance of final payment by Contractor, a Subcontractor or material supplier shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

SC-14.10 *Liquidated Damages*

SC-14.10 The following paragraphs shall be added immediately after Paragraph 14.09.B:

14.10 *Liquidated Damages*

- A. Contractor and Contractor's Surety shall be jointly and severally liable for and shall pay the Owner the cost of expenses incurred by Owner resulting from Contractor's delay in completing the Work of the Contract within the Contract Time, as liquidated damages, and not as a penalty, in the amount of One Thousand Dollars (\$1,000.00) per calendar day, for each calendar day of delay until the Work is substantially complete at each Milestone of construction, subject to adjustments of the Contract Time as provided in the Contract Documents.
- B. In addition to the foregoing and without limiting the foregoing, Contractor and Contractor's Surety shall be jointly and severally liable for and shall pay the Owner the

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

cost of expenses incurred by Owner resulting from Contractor's delay in submitting Shop Drawings, Product Data, Samples and similar submittals beyond the required number of days specified for such submittals as provided in the Contract Documents as liquidated damages, and not as a penalty, in the amount of Five Hundred Dollars (\$500.00) per calendar day, for each calendar day of delay until such submittal has been properly submitted as provided in the Contract Documents. All submittals shall be received by the Engineer from Contractors by the earlier of the (i) date set forth in the Contract Documents, if applicable, or (ii) the date provided in the Schedule of Submittals accepted by the Engineer.

- C. In the event Contractor or Surety litigates the validity of the liquidated damages set forth herein or the assertion of liquidated damages, Contractor and Surety, jointly and severally, shall also be liable for legal fees, professional fees, costs, other expenses and/or damages incurred by Owner. This liquidated damages provision applies to each phase of construction. Owner's right to receive liquidated damages shall be in addition to all other rights and remedies available to Owner at law or in equity.
- D. If Contractor is responsible, in the opinion of the Program Manager and the Engineer, for delay in the actual time of completion of any other contractor employed by the Owner in performance of any other portion of the Project, then Contractor shall be liable for and shall pay to the Owner all liquidated damages otherwise attributable to such other contractor, as well as any legal fees, professional fees, or other costs or expenses incurred by Owner.
- E. Owner shall have the right to deduct the total amount of liquidated damages for which Contractor may be liable under this Paragraph 14.10 from any payments then or thereafter due Contractor.

SC-15.02 Owner May Terminate for Cause

SC-15.02.A Paragraph 15.02.A and its subparagraphs shall be deleted in their entirety and insert the following in their place:

- A. Owner may terminate the Contract for cause if Contractor:
 - 1. refuses or fails to supply enough properly skilled workers or proper materials;
 - 2. fails to make payment to Subcontractors or suppliers for materials or labor in accordance with the respective agreements between Contractor and the Subcontractors;
 - 3. disregards applicable Laws or Regulations;
 - 4. otherwise is guilty of material breach of a provision of the Contract Documents;

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

5. fails to abide by the Progress Schedule, and fails within three (3) days after receipt of written notice to correct any scheduling problems or provide required scheduling information; or
6. the Contractor or any of its Subcontractors or suppliers is suspended or debarred by the Commonwealth of Pennsylvania, any other state, or the federal government.

SC-15.02.C The following sentence shall be added at the end of Paragraph 15.02.C:

This Paragraph shall survive the expiration or sooner termination of the Agreement.

SC-15.02.D Paragraph 15.02.D shall be deleted in its entirety and the following inserted in its place:

Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor cures such failure within seven days of receipt of notice of intent to terminate; Owner may then terminate the Contract at any time after the expiration of such seven day cure period if Contractor does not cure such failure during the cure period. However, if Owner reasonably deems that such failure cannot be cured within such seven day cure period, Owner may terminate the Contract with immediate effect.

SC-15.02.F Add the following new paragraph immediately after 15.02.F:

- G. In the event that Owner declares Contractor in default and Contractor's Surety fails to adhere to its obligations under the Performance Bond and Payment Bond, the Surety shall be liable to Owner for any and all damages that Owner incurs including, but not limited to, any legal fees, professional fees, or other costs or expenses incurred by Owner in connection with Owner's pursuit of its rights under the Performance Bond, Payment Bond and/or applicable Laws and Regulations, including, but not limited to, the cost of all litigation, including, but not limited to, legal fees, professional fees, and all other costs or expenses. To the extent Contractor sues Owner and Owner prevails in such litigation, Contractor shall be responsible for all of Owner's damages including, but not limited to, any and all legal fees, professional fees and all other costs and expenses.

SC-15.04 Contractor May Stop Work or Terminate

SC-15.04.A Paragraph 15.04.A shall be deleted in its entirety and insert the following in its place:

- A. If the Work is stopped for a period of sixty (60) consecutive days under final, nonappealable order of any court or other public authority having jurisdiction, through no act or fault of Contractor or a Subcontractor or their agents or employees or any other persons performing portions of the Work under Contract with Contractor, then Contractor may provide written notice to Owner, Program Manager and Engineer, that it will seek payment pursuant to the alternate dispute resolution procedures, in accordance with the requirements of the Contract Documents and keep working.
- B. In no event may the Contractor stop Work due to a project dispute. Contractor must provide Owner written notice containing detailed information regarding the nature of the disputed issues and utilize the dispute resolution procedures set forth herein.

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

SC-16.01 Methods and Procedure

SC-16.01.C Paragraph 16.01.C shall be deleted in its entirety and insert the following in its place:

- C. To the extent Contractor pursues a claim or litigation against Owner and Owner prevails, partially or completely, on any or all of its own claims or defenses to Contractor's claims, leaving Contractor with less than one hundred percent (100%) recovery, Contractor will be liable for any and all legal fees, professional fees, costs or expenses of Owner, as well as the true cost of any of Owner's employees' time, associated with analyzing any claim, pursuing litigation or defending the claim or litigation and Contractor shall reimburse Owner for such legal fees, professional fees, costs and expenses immediately upon demand by Owner. Further, to the extent any Contractor makes an excessive number of claims, which excessiveness, shall be determined solely in the discretion of Owner, and Owner incurs any legal fees, professional fees, expenses, costs (including, but not limited to, employee cost), Contractor shall be liable for such fees, expenses or costs and Contractor shall reimburse Owner for such legal fees, professional fees, costs and expenses immediately upon demand by Owner.

SC-16.01.D Add the following paragraphs immediately after Paragraph 16.01.C:

- D. In the event of a dispute between Contractor and Owner, to the extent that Owner incurs any legal fees, professional fees, or other costs or expenses, Contractor will be responsible for those amounts, which will be deducted, to the extent available, from any amount due Contractor. If the amount due Contractor is not sufficient to cover such cost, Contractor shall pay the difference to Owner within seven (7) days of receipt of Owner's invoice for such legal fees, professional fees, or other cost or expenses.
- E. Pending final resolution of a dispute, except as otherwise agreed in writing, Contractor shall proceed diligently with performance of Work and Owner shall continue to make payments in accordance with the Contract Documents.
- F. The Contract shall be governed by the laws of the Commonwealth of Pennsylvania without regard to conflicts of law. All actions shall be settled in a non-jury trial and shall be brought in the Court of Common Pleas of Berks County, Pennsylvania or the United States District Court for the Eastern District of Pennsylvania and not elsewhere

SC-17.07 Grant Requirements

SC-17.07 Add the following new paragraph immediately after 17.06:

17.07 *Grant Requirements*

- A. The Project is being funded in part by grant money provided by the Commonwealth of Pennsylvania. Contractor shall perform Work and ensure that its Subcontractors perform Work in strict accordance with the requirements and conditions set forth in all grant documents applicable to the Project. If any grant money is forfeited as a direct or indirect result of Contractor's or Subcontractor's performance or non-performance of

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

Work, Contractor, the Contract Price shall be reduced in the amount equal to such forfeited grant monies.

- B. Contractor shall certify that, as of the date of its execution of the Contract Documents, that Contractor, nor any Subcontractors, nor any suppliers are under suspension or debarment by the Commonwealth of Pennsylvania or any governmental entity, instrumentality, or authority and, if the Contractor cannot so certify, then it agrees to submit, along with the executed Contract Documents, a written explanation of why such certification cannot be made.
- C. Contractor shall immediately notify Owner if it or any of Subcontractor or supplier is suspended or debarred by the Commonwealth of Pennsylvania, any other state, or the federal government.
- D. Contractor shall not accept or agree to accept from, or give or agree to give to, any person, any gratuity from any person in connection with the performance of Work except with the consent of the Commonwealth of Pennsylvania.
- E. Contractor shall adhere to and, if requested, agree to in writing, all contractor integrity provisions required any grant associated with this Project.
- F. Contractor shall perform any tasks specifically required of Contractor in the grant agreement included in the Bidding Documents.

SC-17.08 Notice

SC-17.08 Add the following new paragraph immediately after 17.07:

17.08 *Notice*

- A. The parties hereto agree that all notices required to be given (except the Entry Notice) shall be given by hand delivery, electronic mail or facsimile (all with a confirmation of receipt) with a copy sent by a nationally recognized overnight courier addressed to the parties at the addresses set forth below. Such notices shall be deemed received on the date stated on the confirmation of receipt. Either party may change its aforesaid address by written notice to the other.

To Owner:	Managing Director City of Reading 815 Washington Street Reading, PA 19601
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Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

With a copy to counsel: John J. Miravich, Esquire
Fox Rothschild LLP
747 Constitution Drive, Suite 100
P.O. Box 673
Exton, PA 19341-0673
Fax: (610) 458-7337
jmiravich@foxrothschild.com

To Contractor: _____

ARTICLE 18 STATUTORY REQUIREMENTS

SC-18 Add the following paragraphs as Article 18 immediately following Paragraph 17.06:

18.01 *Applicable Laws*

- A. Contractor's attention is directed to the fact that all applicable Federal and State laws, Municipal ordinances and the rules and regulations of all authorities having jurisdiction over construction of the Project shall apply to the Agreement throughout, and they are deemed to be included in the Agreement the same as though herein written in full.

18.02. *Human Relations Act*

- A. The provisions of the Pennsylvania Human Relations Act, Act 222 of October 27, 1955 P.L. 744, as amended from time to time (43 P.S. Section 951, et seq.) of the Commonwealth of Pennsylvania prohibit discrimination because of race, color, religious creed, ancestry, age, sex, national origin, or non-job related handicap or disability or the use of a guide or support animal because of blindness, deafness or physical handicap, by employers, employment agencies, labor organizations, contractors and others. Contractor shall agree to comply with the provisions of the Pennsylvania Human Relations Act, as amended from time to time, which is made part of these General Conditions as if included herein at length. Contractor's attention is directed to the language of the Commonwealth's non-discrimination clause in 16 Pa. Code Section 49.101, et seq., as amended from time to time.

18.03. *Prevailing Wages*

- A. The Pennsylvania Prevailing Wage Rates, as determined by the Pennsylvania Department of Labor and Industry, shall apply to the Project. The Pennsylvania Prevailing Wage Act (Act No. 442 of 1961, P.L. 987, amended by Act 342 of 1963, P.L. 653), and as amended from time to time (43 P.S. Section 165-1, et seq.), the regulations thereto, and the Prevailing Minimum Wage Determination Schedule, as determined by the Secretary of Labor and Industry, which shall be paid for each craft or classification of all workers needed to

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

perform the Contract during the anticipated term therefore in the locality in which the Work is performed, are made part of these General Conditions.

- B. No person shall be employed to perform Work under this Contract except competent and first-class workers and mechanics. No workers shall be regarded as competent and first-class except those who are duly skilled in their respective branches of labor, and who shall be paid not less than such rates of wages and for such hours as established by the Secretary of the Department of Labor and Industry under the "Pennsylvania Prevailing Wage Act" (Act No. 442), effective February 1, 1962, amended by Act 342 of 1963, P.L. 653 and as amended from time to time.
- C. The general prevailing minimum wage rates including contributions for employee benefits as determined by the Secretary shall be paid to the workers employed in the performance of the Contract.
- D. Contractor shall pay no less than the wage rates as determined in the decision of the Secretary of the Pennsylvania Department of Labor and Industry and shall comply with the conditions of the Pennsylvania Prevailing Wage Act approved August 15, 1961 (Act No. 442), as amended August 9, 1963 (Act No. 342 of 1963, P.L. 653, and as amended from time to time), and the Regulations issued pursuant thereto, to assure the full and proper payment of said rates.
- E. All workers shall be paid no less than such general prevailing minimum wage rates and such other provisions to assure payment thereof as heretofore set forth in the Contract Documents.
- F. The Contract provisions shall apply to all Work performed on the Contract by Contractor and to all Work performed on the Contract by all Subcontractors and Sub-subcontractors.
- G. Contractor shall insert into each subcontract all of the stipulations contained in Paragraph 18.03 and such other stipulations as may be required.
- H. No workers shall be employed on the Project except in accordance with the classifications set forth in the applicable prevailing minimum wage rate decision. In the event that additional or different classifications are necessary, the procedure set forth in the applicable Laws and Regulations shall be followed.
- I. All workers employed or working on the Project shall be paid unconditionally, regardless of whether any contractual relationship exists or the nature of any contractual relationship which may be alleged to exist between any Contractor, Subcontractor and workers, not less than once a week without deduction or rebate, on any account, either directly or indirectly, except authorized deduction, the full amounts due at the time of payment, computed at the rates applicable to the time worked in the appropriate classification. Nothing in the Contract, the Pennsylvania Prevailing Wage Act or any applicable regulations shall prohibit the payment of more than the applicable prevailing minimum wage rates as determined by the Secretary to any worker on the Project.

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

- J. Contractor and each Subcontractor shall post for the entire period of construction, the applicable wage determination decisions, including, without limitation, the effective date of any changes thereof, in a prominent and easily accessible place or places at the Site of the Work and at such place or places used by them to pay workers their wages. The posted notice of wage rates shall contain the following information:
1. Name of Project.
 2. Name of public body of which it is being constructed.
 3. The crafts and classifications of workers listed in the applicable prevailing minimum wage rate determination for the particular project.
 4. The applicable prevailing minimum wage rates determined for each craft and classification and the effective date of any changes.
 5. A statement advising workers that if they have been paid less than the applicable prevailing minimum wage rate for the job classification or that Contractor and/or Subcontractor are not complying with the Pennsylvania Prevailing Wage Act or the applicable regulations in any manner whatsoever, they may file a protest in writing with the applicable governmental agency, within three (3) months of the date of the occurrence, objecting to the payment to any Contractor to the extent of the amount or amounts due or to become due to them as wages for Work performed on the Project. Any workers paid less than the rate specified in the Contract shall have a civil right of action for the difference between the wage paid and the wages stipulated in the Contract, which right of action must be exercised within six (6) months from the occurrence of the event creating such right.
- K. Contractor and all Subcontractors shall keep an accurate record showing the time, craft and/or classification, number of hours worked per day, and the actual hourly rate of wage paid (including employee benefits) to each worker employed by them in connection with the Project (including apprentices) and such record must include, without limitation, any deductions from each worker. The record shall be preserved for two (2) years from the date of payment and shall be open at all reasonable hours to the inspection of Owner and to any other applicable governmental authority's authorized representatives.
- L. Wages shall be paid without any deductions except authorized deductions. Employers not parties to a Contract requiring contributions for employee benefits which the applicable governmental authority has determined to be included in the applicable prevailing minimum wage rate shall pay the monetary equivalent thereof directly to the workers.
- M. Payment of compensation to workers for Work performed on the Project on a lump sum basis, or a piece work basis, or a price certain for the completion of a certain amount of Work, or the production of a certain result, shall be deemed a violation of the Pennsylvania Prevailing Wage Act and the regulations thereto, regardless of the average hourly earnings resulting therefrom.

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

- N. Contractor and Subcontractor shall file a statement each week and a final statement at the conclusion of the Work on the Project with Owner, under oath, and in form, satisfactory to the applicable governmental authority, certifying that all workers have been paid wages in strict conformity with the provisions of the Contract as prescribed in the Pennsylvania Prevailing Wage Act and the regulations thereto, or if any wages remain unpaid to set forth the amount of wages due and owing to each worker respectively.
- O. If Contractor fails to comply with the requirements set forth in Paragraph 18.03, Contractor shall pay Owner, as liquidated damages, an amount equal to twice the difference between the minimum wage required to be paid in compliance with Paragraph 18.03 and the wage actually paid to each laborer or mechanic for each day during which said laborer or mechanic has been employed at a wage less than prescribed.

18.04 *Citizens*

- A. Only citizens of the United States of America shall be employed, in any capacity, in the performance of any Work under the Contract; provided, however, that apprentices to a trade or profession who may be under twenty-one (21) years of age shall not be subject to the foregoing restriction.
- B. The Contractor and each Subcontractor shall submit to the Owner a separate and complete Verification Form, executed by a representative who has sufficient knowledge and authority to make the representations and certifications contained in the Verification Form, as required by the Public Works Employment Verification Act, Act No. 127, July 5, 2012 (formerly Senate Bill 637), before performing any Work on the Project.

18.05 *Safety And Health Regulations For Construction*

- A. Contractor shall be fully informed of and shall comply with all local, state and federal regulations for construction as amended to date, as the rules and regulations in detail apply for the Work under the Contract. All applicable rules and regulations of governing bodies are hereby made a part of these General Conditions by reference, as if written out in full within.

18.06 *Steel Products Procurement Act*

- A. In accordance with Act 3 of the 1978 General Assembly of the Commonwealth of Pennsylvania, (March 3, 1978 P.L. 6), as amended from time to time (73 P.S. Section 1881, et seq.), all steel products used or supplied in the performance of the Work, only those steel products produced in the United States, as herein defined, shall be used or supplied in the performance of the Contract or any Subcontractors thereunder.
- B. "Steel products" are defined as products rolled, formed, shaped, drawn, extruded, forged, cast, fabricated or otherwise similarly processed, or processed by a combination of two (2) or more of such operations, from steel made in the United States by the open hearth, basic oxygen, electric furnace, Bessemer or other steel making process and shall include cast iron products, machinery and equipment listed in United States Department of Commerce Standard Industrial Classification 25 (furniture and fixture), 35

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

(machinery, except electrical) and 37 (transportation equipment) and made of, fabricated from, or containing steel components. If a product contains both foreign and United States steel, such product shall be determined to be a United States steel product only if at least seventy-five percent (75%) of the cost of the articles, materials and supplies have been mined, produced or manufactured, as the case may be, in the United States. Transportation equipment shall be determined to be a United States steel product if it complies with Section 165 of Public Law 97-424 (96 Stat. 2136).

- C. "United States" is defined as the United States of America and includes all territory, continental or insular, subject to the jurisdiction of the United States.
- D. In accordance with Act 161 of 1982 (June 18, 1982 P.L. 556) cast iron products shall also be included and produced in the United States. Act 144 of 1984 (July 9, 1984 P.L. 674) further defines "steel products" to include machinery and equipment. Act 142 of 1980 (Oct. 5, 1980 P.L. 693), Act 161 of 1982 and Act 141 of 1984 provide clarifications and penalties and Contractor shall abide by these Acts, as amended from time to time.

18.07 *Anti-Pollution Legislation*

- A. 62 Pa. C.S.A. Section 3301 requires that Bidders on construction contracts for governmental agencies be advised that there are provisions of Federal and State statutes, rules and regulations dealing with the prevention of environmental pollution and the preservation of public natural resources that affect the Project on which Bids are being received.
- B. The Bidder shall become thoroughly acquainted with the terms of the listed statutes, rules and regulations, including, but not limited to, Flood Plain Management Act (32 P.S. Section 679.101, et seq.), Water Well Drillers License Act (32 P.S. Section 645.1, et seq.), Pennsylvania Scenic Rivers Act (32 P.S. Section 820.21, et seq.), Dam Safety and Encroachment Act (32 P.S. Sec. 693.1, et seq.), Bluff Recession and Setback Act (32 P.S. Section 5201, et seq.), Storm Water Management Act (32 P.S. Section 680, et seq.), Pennsylvania Sewage Facilities Act (35 P.S. Section 750.1, et seq.), Pennsylvania Solid Waste Management Act (35 P.S. Section 6018.101, et seq.), Pennsylvania Safe Drinking Water Act (35 P.S. Section 721.1, et seq.), the Clean Streams Law (35 P.S. Section 691.901 et seq. and 35 P.S. Section 691.1 et. seq.), Air Pollution Control Act (35 P.S. Section 4001, et seq.), Pennsylvania Historic Preservation Act (37 Pa. C.S.A. Section 501, et seq.), Pennsylvania Hazardous Sites Clean Up Act (35 P.S. Section 6020.101, et seq.), Pennsylvania Storage Tank and Spill Prevention Act (35 P.S. Sec. 6021.101, et seq.), Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. Sections 9601-9675), as amended, including, but not limited to, the Superfund Amendments and Reauthorization Act (P.L. 99-499), Federal Solid Waste Disposal Act (42 U.S.C. Sections 6901-6992), Federal Clean Air Act (Air Pollution Act) (42 U.S.C. Sections 7401-7642), Federal Safe Drinking Water Act (See Public Health Service Act Sections 1401-1451) (42 U.S.C. Sections 300f-300j), Wild and Scenic River Act (P.L. 90-542), Endangered Species Conservation Act of 1969 (P.L. 89-669), Endangered Species Conservation Act of 1973 (16 U.S.C. Sections 1531-1544), Federal Clean Water Act of 1977 (P.L. 95-217), Rivers and Harbor Act of 1970 (P.L. 91-611), Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. Sections 136-136y), Toxic

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

Substance Control Act (15 U.S.C. Sections 2601-2692), Resource Conservation and Recovery Act of 1976 (42 U.S.C. Sections 6901-6991), Coastal Wetlands Planning, Protection and Restoration Act (16 U.S.C. Sections 3951-3956), Coastal Zone Management Act of 1972 (16 U.S.C. Sections 1451-1464), Community Environmental Response Facilitation Act (42 U.S.C. Section 9620), Emergency Planning and Right-to-Know Act of 1986 (42 U.S.C. Sections 11001-11050), Energy Supply and Environmental Coordination Act of 1974 (15 U.S.C. Sections 791-798), Environmental Quality Improvement Act of 1970 (42 U.S.C. Sections 4371-4375), Federal Facility Compliance Act of 1992 (42 U.S.C. Section 6901), Federal Land Policy and Management Act of 1976 (43 U.S.C. Sections 1701-1784), Federal Water Pollution Control Act (33 U.S.C. Sections 1251-1387), Geothermal Energy Research, Development, and Demonstration Act of 1974 (30 U.S.C. Sections 2001-1264), Global Climate Protection Act of 1987 (15 U.S.C. Section 2901 note), Hazardous Substance Response Revenue Act of 1980 (see 26 U.S.C. Sections 4611, 4612, 4661, 4662), Lead-Based Paint Exposure Reduction Act (15 U.S.C. Sections 2681-2692), Lead Contamination Control Act of 1988 (42 U.S.C. Sections 300j-21 to 300j-25), Low-Level Radioactive Waste Policy Act (42 U.S.C. Sections 2021b-2021d), National Climate Program Act (15 U.S.C. Sections 2901-2908), National Contaminated Sediment Assessment and Management Act (33 U.S.C. Section 1271 note), National Environmental Policy Act of 1969 (42 U.S.C. Sections 4321-4370b), National Ocean Pollution Planning Act of 1978 (33 U.S.C. Sections 1701-1709), Noise Control Act of 1972 (42 U.S.C. Sections 4901-4918), Oil Pollution Act of 1990 (33 U.S.C. Sections 2701-2761), Pollution Prevention Act of 1990 (42 U.S.C. Sections 13101-13109), Public Health Service Act (42 U.S.C. Sections 300f-300j-11), Renewable Resources Extension Act of 1978 (16 U.S.C. Sections 1671-1676), Resource Conservation and Recovery Act of 1976 (42 U.S.C. Sections 6901-6991), Soil and Water Resources Conservation Act of 1977 (16 U.S.C. Sections 2001-2009), Water Resources Research Act of 1984 (42 U.S.C. Sections 10301-10309), Wood Residue Utilization Act of 1980 (16 U.S.C. Sections 1681-1687), Pennsylvania Worker and Community Right-to-Know Act (35 P.S. Section 7301, et seq.), Asbestos Hazard Emergency Response Act of 1986 (see Toxic Substances Control Act Sections 201-214) (15 U.S.C. Sections 2651-2654), Delaware River Basin Compact (32 P.S. Section 815.101, et seq.), Brandywine River Valley Compact (32 P.S. Section 818, et seq.), Wheeling Creek Watershed Protection and Flood Prevention District Compact (32 P.S. Section 819, et seq.), Susquehanna River Basin Compact (32 P.S. Section 820.1, et seq.), Chesapeake Bay Commission Agreement (32 P.S. Section 820.11, et seq.), Land and Water Conservation and Reclamation Act (32 P.S. Section 5101, et seq.), Wild Resource Conservation Act (32 P.S. Section 5301, et seq.), Cave Protection Act (32 P.S. Section 5601, et seq.), Rails to Trails Act (32 P.S. Section 5611, et seq.), Phosphate Detergent Act (35 P.S. Section 722.1, et seq.), Plumbing System Lead Ban and Notification Act (35 P.S. Section 723.1, et seq.), Publicly Owned Treatment Works Penalty Law (35 P.S. Section 752.1, et seq.), Pennsylvania Solid Waste-Resources Recovery Act (35 P.S. Section 755.1, et seq.), Sewage System Cleaner Control Act (35 P.S. Section 770.01, et seq.), Hazardous Material Emergency Planning and Response Act (35 P.S. Section 6022.101, et seq.), Oil Spill Responder Liability Act (35 P.S. Section 6023.1, et seq.), Land Recycling and Environmental Remediation Standards Act (35 P.S. Section 6026.101, et seq.), Radiation Protection Act (35 P.S. Section 7110.101, et seq.), Low-Level Radioactive Waste Disposal Act (35 P.S. Section 7130.101, et seq.), Pennsylvania Municipalities Planning Code (53 P.S. Section 10101, et seq.), regulations, ordinances,

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

and other actions pursuant to the foregoing, regulations pertaining to Pennsylvania Erosion and Sediment Control, and so on.

- C. No separate or additional payment will be made for such compliance. In the event that the listed statutes, rules and regulations are amended, or if new statutes, rules or regulations become effective, after date of receipt of Bids, upon receipt of documentation which causes Contractor to perform additional Work, Owner may issue a Change Order setting forth the additional Work that must be undertaken and such additional Work shall be undertaken at no additional cost to Owner. It is also the responsibility of Contractor to determine what local ordinances, if any, will affect its portion of the Work. Contractor shall check for any County, City, Borough or Township rules or regulations applicable to the area in which the Project is being constructed and, in addition, for any rules or regulations of other organizations having jurisdiction, including, without limitation, chambers of commerce, planning commissions, industries or utility companies who have jurisdiction over lands which Contractor occupies. Any costs of compliance with local controls shall be included in the prices bid, even though documents of such local controlling agencies are not listed herein.

18.08 *Erosion Control*

- A. Contractors performing excavation work shall comply with all rules and regulations of Chapter 102, Title 25 of Pennsylvania Soils Erosion and Sedimentation Control (25 Pa. Code Section 102.1, et seq.). Prior to any grading, Contractor shall be responsible to obtain approval from the Department of Environmental Protection for an approved sedimentation and erosion control site plan and shall perform all necessary site work in accordance with said plan. The plan shall be available at the site at all times. Contractors performing excavation work shall maintain all devices as required to control erosion caused by storing water and preventing dust and particles from being distributed off site.
- B. Site Excavation: Contractor shall:
1. Request the location and type of facility owner lines at the Site by notifying the facility owner through the one call system as defined in 73 P.S. § 176. Notification shall be not less than three (3) business days nor more than ten (10) business days in advance of beginning excavation or demolition work. No work shall begin earlier than the scheduled excavation date which shall be on or after the third business day after notification. The scheduled excavation date shall exclude the date upon which notification was received by the one call system and notification received on a Saturday, Sunday or holiday, which shall be processed on the following business day. In the case of a complex project as defined in 73 P.S. § 176, notification shall not be less than ten (10) business days in advance of the beginning of excavation or demolition work.
 2. Provide the one call system with specific information to identify the Site so that facility owners might provide indications of their lines.
 3. Take reasonable steps to work with facility owners including, without limitation, scheduling and conducting a preconstruction meeting, so that Contractor may

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

locate the facilities at a time reasonably in advance of the actual start of excavation or demolition work for each phase of the Work if the Project is a complex project as defined in 73 P.S. § 176 or if an excavation Contractor intends to perform work at multiple sites or over a large area. After commencement of excavation or demolition work, the excavation Contractor shall be responsible for protecting and preserving the staking, marking or other designation until no longer required for proper and safe excavation or demolition work at or near the underground facility, or by contacting the one call system to request that the facilities be marked again in the event that the previous markings have been compromised or eliminated.

4. Comply with the requirements established by the one call system as determined by the board of directors regarding the maximum area that a notification may cover.
5. Inform each operator employed by the excavation Contractor at the Site of the information received with respect to location and type of underground installations and any other information required by 73 P.S. § 176, et. seq.
6. Report immediately to Owner and Engineer, any break or leak on its lines or any dent, gouge, groove or other damage to such lines, to their coating or cathodic protection, made or discovered in the course of the excavation or demolition work.
7. Immediately notify 911 and the facility owner if the damage results in the escape of any flammable, toxic or corrosive gas or liquid which endangers life, health or property.
8. Assist a facility owner in determining involvement of a facility owner's lines by disclosing additional available information requested by the facility owner, including, without limitation, dimensions and the direction of proposed excavations.
9. Re-notify the one call system unless other arrangements have been made directly with the facility owners involved at the Site if the excavation Contractor removes its equipment and vacates the Site for more than two (2) business days.
10. Submit an incident report to the Department of Labor and Industry of the Commonwealth of Pennsylvania not more than ten (10) business days after striking or otherwise damaging a facility owner's line during excavation or demolition activities that resulted in personal injury or property damage to parties other than the affected excavation Contractor or facility owner.
11. Comply with all requests for information by the Department of Labor and Industry of the Commonwealth of Pennsylvania relating to such Department of Labor and Industry's enforcement authority under the 73 P.S. § 176, et. seq. within thirty (30) days of the receipt of the request.

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

12. Ensure the accuracy of the information provided to the one call system pursuant to 73 P.S. § 176, et. seq.
13. Become thoroughly acquainted with and comply with all other terms and conditions specified in 73 P.S. § 176, et. seq., as amended from time to time including, without limitation, Contractor shall pay all applicable fees.
14. Complete the site excavation in full compliance with all applicable Laws and Regulations.

18.09 Nondiscrimination/Sexual Harassment Clause

- A. Each Contract entered into by a governmental agency for the construction, alteration or repair of any public building or public work shall contain the following provisions by which Contractor agrees:
1. In the hiring of any employees for the manufacturer of supplies, performance of the Work, or any other activity required under the Contract or any subcontract, Contractor, Subcontractor, or any person acting on behalf of Contractor or Subcontractor shall not, by reason of gender, race, creed, or color, discriminate against any citizen of the Commonwealth of Pennsylvania who is qualified and available to perform the Work to which the employment relates. (62 Pa. C.S.A. Section 3701).
 2. Neither Contractor nor any Subcontractor nor any person on their behalf shall in any manner discriminate against or intimidate any employee involved in the manufacturer of supplies, the performance of Work, or any other activity required under the Contract on account of gender, race, creed, or color. (62 Pa. C.S.A. Section 3701).
 3. Contractors and Subcontractors shall establish and maintain a written sexual harassment policy and shall inform their employees of the policy. The policy must contain a notice that sexual harassment will not be tolerated and employees who practice it will be disciplined.
 4. Contractors shall not discriminate by reason of gender, race, creed, or color against any Subcontractor or supplier who is qualified to perform the Work to which the Contract relates.
 5. Contractor and each Subcontractor shall furnish necessary employment documents and records to and permit access to their books, records, and accounts by the contracting agency and the Bureau of Contract Administration and Business Development, for purposes of investigation, to ascertain compliance with provisions of Paragraph 18.09. If Contractor or any Subcontractor does not possess documents or records reflecting the necessary information requested, Contractor or Subcontractor shall furnish such information on reporting forms supplied by the contracting agency or the Bureau of Contract Administration and Business Development.

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

6. Contractor shall include, without limitation, the provisions of Paragraph 18.09 in every subcontract so that such provisions will be binding, upon each Subcontractor.
7. The Commonwealth of Pennsylvania may cancel or terminate the Contract and all money due or to become due under the Contract may be forfeited for a violation of the terms and conditions of Paragraph 18.09. In addition, the agency may proceed with debarment or suspension and may place Contractor in the contractor responsibility file.

18.10 *Pennsylvania Uniform Construction Code*

- A. Contractor shall comply with all requirements of the Pennsylvania Uniform Construction Code, 35 P.S. § 7210.301 – 7210.304, as amended by S.B. 1139, Session of 2004, as further amended from time to time.

18.11 *The Right to Know Law*

- A. Contractor shall comply with all requirements of Act 3 of 2008, "The Right-To-Know Law", 65 P.S. Section 67.101 et seq. Upon notification that Owner has received a request for records under the Right-to-Know Law ("RTKL"), Contractor shall assist Owner in responding to the request. Contractor shall provide Owner within three (3) days, access to, and copies of, any document or information arising out of the Contract that Owner deems a Public Record ("Requested Information") and Contractor shall provide such other assistance as Owner may request in order to comply with the RTKL. If Contractor is unable to provide the Requested Information within three (3) days for one of the reasons specified in the RTKL, Contractor shall immediately notify Owner that it will need up to an additional twenty-five (25) days and must provide in writing the reason the additional time is needed. The failure by Contractor to provide the Requested Information to Owner within the period specified in this provision will be considered an event of default. Contractor shall defend, indemnify and hold Owner harmless from and against any damages, penalties, expenses, detriment or harm that Owner may incur as a result of the failure to provide the Requested Information to Owner within the period specified in this provision. If the Office of Open Records or the Pennsylvania Courts determines that the record requested by Owner is a Public Record, liquidated damages of Five Hundred Dollars (\$500.00) per day will be assessed against Contractor for each calendar day beyond the date the record was required to be provided by Contractor to Owner.
- B. Owner's determination as to whether the Requested Information is a Public Record is dispositive of the question as between Owner and Contractor. Contractor agrees not to challenge Owner's decision to deem the Requested Information a Public Record. If the Requested Information is a Trade Secret or Confidential Proprietary Information, as defined by the RTKL, Contractor shall immediately notify Owner, and provide a written statement signed by a representative of Contractor(s) explaining why the requested material is exempt from public disclosure under the RTKL within five (5) days. If, upon review of the written statement, Owner still decides to provide the Requested Information, Contractor shall not challenge or in any way hold liable Owner for such a decision.

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

- C. Owner will provide Contractor with reimbursement for costs associated with complying with this provision only to the extent allowed under the fee schedule established by the Office of Open Records or as otherwise provided by the RTKL if the fee schedule is inapplicable.
- D. Contractor shall abide by any decision to release a record to the public made by the Office of Open Records or by the Pennsylvania Courts. Contractor waives all rights or remedies that may be available to as a result of Owner's disclosure of Requested Information pursuant to the RTKL. Duties relating to the RTKL are continuing duties that survive the expiration of the Contract and continue as long as the Requested Information is retained.

18.12. *Prohibition of Illegal Alien Labor on Assisted Projects Act.*

- A. Pursuant to the Act of May 11, 2006, (P.L. 173, No. 43), known as the Prohibition of Illegal Alien Labor on Assisted Projects Act, Contractor shall not knowingly employ, or knowingly permit any of its subcontractors to knowingly employ, the labor services of an illegal alien.

18.13. *Bona Fide Apprenticeship Program*

- A. Prior to performing any Work and throughout the duration of the Project, the Contractor shall employ apprentices on the Project in such numbers as to establish a bona fide apprenticeship program. Such apprenticeship program shall be registered with and approved by the Pennsylvania Apprenticeship and Training Council and employ apprentices whose training and employment are in full compliance with the provisions of the Apprenticeship and Training Act effective as of June 1, 1961 (Act No. 304, P.L. 604; 43 P.S. Sec. 90.1, et seq.), the rules and regulations issued pursuant thereto, as amended from time to time. Any workers using the tools of a craft who does not qualify as an apprentice within the provisions of the Apprenticeship and Training Act shall be paid the rate predetermined for journeymen in that particular craft and/or classification.

END OF SECTION 00 8000

SECTION 00 8400 – PENNSYLVANIA PREVAILING WAGE RATES

PA STATE AGENCIES

ONLINE SERVICES

--search PA--

Paging on/off

(Printing Instructions)

View Notes

Printer Friendly Version

Project Name: Anaerobic Digester No. 4 and No. 5 Tank Cleaning
Project
Awarding Agency: City of Reading
Contract Award Date: 12/15/2012
Serial Number: 12-06097
Project Classification: Building/Heavy
Determination Date: 11/8/2012
County: Berks
Assigned Field Office: Scranton
Field Office Phone Number: (570)963-4577
Toll Free Phone Number: (877)214-3962

Building

Find: ---Select---

Search

View All

Search returned 233 record(s)

Contractor Craft	Hourly Rate	Fringe Benefits	Total	Effective Date	Expiration Date
Asbestos & Insulation Workers	\$30.63	\$20.13	\$50.76	06/28/2010	
Asbestos & Insulation Workers	\$31.67	\$21.09	\$52.76	06/27/2011	
Asbestos & Insulation Workers	\$32.17	\$21.59	\$53.76	07/02/2012	
Asbestos & Insulation Workers	\$33.17	\$21.59	\$54.76	07/01/2013	
Asbestos & Insulation Workers	\$34.17	\$21.59	\$55.76	06/30/2014	
Boilermaker (Commercial, Institutional, and Minor Repair Work)	\$23.59	\$15.15	\$38.74	01/01/2010	
Boilermaker (Commercial, Institutional, and Minor Repair Work)	\$24.22	\$16.02	\$40.24	03/01/2011	
Boilermaker (Commercial, Institutional, and Minor Repair Work)	\$24.84	\$16.90	\$41.74	05/01/2012	
Boilermakers	\$37.35	\$28.12	\$65.47	01/01/2011	
Boilermakers	\$37.62	\$29.85	\$67.47	01/01/2012	
Bricklayers, Stone Masons, Pointers, Caulkers, Cleaners	\$30.41	\$14.28	\$44.69	05/02/2011	
Bricklayers, Stone Masons, Pointers, Caulkers, Cleaners	\$30.92	\$14.32	\$45.24	04/29/2012	
Bricklayers, Stone Masons, Pointers, Caulkers, Cleaners	\$31.55	\$14.39	\$45.94	04/28/2013	
Bricklayers, Stone Masons, Pointers, Caulkers, Cleaners	\$32.28	\$14.46	\$46.74	05/04/2014	
Bricklayers, Stone Masons, Pointers, Caulkers, Cleaners	\$33.06	\$14.53	\$47.59	05/03/2015	
Bricklayers, Stone Masons, Pointers, Caulkers, Cleaners	\$33.88	\$14.61	\$48.49	05/01/2016	
Carpenters, Drywall Hangers, Framers, Instrument Men, Lathers, Soft Floor Layers	\$24.42	\$9.67	\$34.09	06/01/2008	
Carpenters, Drywall Hangers, Framers, Instrument Men, Lathers, Soft Floor Layers	\$25.69	\$10.27	\$35.96	06/01/2009	
Carpenters, Drywall Hangers, Framers, Instrument Men, Lathers, Soft Floor Layers	\$26.71	\$11.02	\$37.73	06/01/2010	
Carpenters, Drywall Hangers, Framers, Instrument Men, Lathers, Soft Floor Layers	\$27.61	\$11.77	\$39.38	06/01/2011	

Anaerobic Digester No. 4 and No. 5 Tank Cleaning Project
City of Reading, Pennsylvania

Heavy/Highway

Find:

If you can not find a classification under Heavy/Highway, please refer to the Building classifications
Search returned 125 record(s)

Contractor Craft	Hourly Rate	Fringe Benefits	Total	Effective Date	Expiration Date
Carpenters	\$25.30	\$9.86	\$35.16	05/01/2009	
Carpenters	\$25.98	\$10.83	\$36.81	05/01/2010	
Carpenters	\$27.03	\$11.43	\$38.46	05/01/2011	
Carpenters	\$27.18	\$12.38	\$39.56	05/01/2012	
Carpenters	\$27.92	\$12.84	\$40.76	05/01/2013	
Carpenters	\$28.72	\$13.24	\$41.96	05/01/2014	
Laborers (Class 01 - See notes)	\$16.22	\$11.03	\$27.25	05/01/2009	
Laborers (Class 01 - See notes)	\$16.77	\$11.88	\$28.65	05/01/2010	
Laborers (Class 01 - See notes)	\$17.32	\$12.78	\$30.10	05/01/2011	
Laborers (Class 01 - See notes)	\$17.71	\$13.39	\$31.10	05/01/2012	
Laborers (Class 01 - See notes)	\$18.16	\$14.04	\$32.20	05/01/2013	
Laborers (Class 01 - See notes)	\$18.66	\$14.69	\$33.35	05/01/2014	
Laborers (Class 01 - See notes)	\$19.21	\$15.34	\$34.55	05/01/2015	
Laborers (Class 02 - See notes)	\$22.84	\$11.03	\$33.87	05/01/2009	
Laborers (Class 02 - See notes)	\$23.39	\$11.88	\$35.27	05/01/2010	
Laborers (Class 02 - See notes)	\$23.94	\$12.78	\$36.72	05/01/2011	
Laborers (Class 02 - See notes)	\$24.33	\$13.39	\$37.72	05/01/2012	
Laborers (Class 02 - See notes)	\$24.78	\$14.04	\$38.82	05/01/2013	
Laborers (Class 02 - See notes)	\$25.28	\$14.69	\$39.97	05/01/2014	
Laborers (Class 02 - See notes)	\$25.83	\$15.34	\$41.17	05/01/2015	

END OF SECTION 00 8400

SECTION 010100

SUMMARY OF WORK

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. The scope of Work is fully described in the plans and these specifications; and generally consists of the following:
 - 1. Furnish all necessary labor, materials, and equipment to remove all grit, screenings, sludge, macro-fauna (e.g., snails) and floatables from two (2) existing secondary anaerobic digesters for disposal to a permitted site. The Work also includes provisions for odor control measures. The Contractor shall coordinate all phases of the Work with both the Owner and the Engineer.
 - 2. If directed by the Owner, the Contractor shall perform the Work under the Alternate on the Bid Form to replace supernatant overflow piping within the sludge control building for each tank, in lieu of disassembly and cleaning of this piping. Approximately 32 linear feet of existing 8-inch cast iron piping and fittings shall be replaced in-kind with epoxy line ductile iron pipe and fittings, to extend from the 8-inch tee in the lower level of the building level, up through the ground floor and back down to the 8" cross in the lower level of the building.
 - 3. All other Work of any type or description necessary for completion of the Project, whether or not specifically described herein.
 - 4. All Work to be performed under a single contract.

1.02 PROJECT SITE

- A. Project Site is the City of Reading, Fritz Island Wastewater Treatment Plant.

1.03 CONTRACTOR'S USE OF PREMISES

- A. Confine construction equipment, the storage of materials and equipment, and operation of workmen to within the project site. The project site shall be as established by the Owner and in the immediate vicinity of the tanks to be cleaned.
- B. Do not obstruct access to the sludge control building, or any other part of the facility. Keep all access roads clear and available for use at all times.

- C. Assume full responsibility for material and equipment stored on Site.

1.04 WORK SEQUENCE

- A. Submit a detailed construction sequence as required by Section 013100 for Owner approval.

1.05 SPECIAL REQUIREMENTS

- A. Provide on-site temporary sludge dewatering facilities in accordance with Section 132000.
- B. Prior to mobilization, an odor control plan must be submitted to the Owner and Engineer for review and approval. The plan must contain adequate provisions to ensure that the odors generated by the on-site dewatering and transport of sludge are contained to within practical and acceptable limits.
- C. The tanks are to be cleaned sequentially in the order established by the Owner, and a one-week period shall be provided following the cleaning of the first tank to allow for the Owner and Engineer to inspect the tank interior.
- D. The Contractor shall obtain Owner approval prior to proceeding with any Work that involves a plant process interruption or stoppage.

END OF SECTION 010100

SECTION 010120

MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Requirements for determining measurement and payment of Work in place.

1.02 RELATED WORK

- A. All Work described in the plans and specifications shall be covered by this Section.

1.03 SYSTEM DESCRIPTION

A. UNIT PRICE ITEMS

1. Measurement of units of Work for which payment will be made by unit prices will be defined in Part Three of the respective sections.
2. Payment for the units of Work will be determined by multiplying the unit prices stated within the bid proposal by the quantity of the unit of Work as determined by the measurement portions of Part Three of the respective sections. Payment for the units of Work shall be the full compensation for furnishing all material, labor, supervision, equipment, services, and all else necessary and incidental to complete the Work.

B. LUMP SUM ITEMS AND LUMP SUM CONTRACTS

1. Items of Work will be indicated on the bid schedule.
2. Payment for the items of Work indicated in the bid schedule will be at the prices stated within the bid. Payment for the Work to be performed under the lump sum shall be the full compensation for furnishing all material, labor, supervision, equipment, services, and all else necessary and incidental to complete the work as shown on the drawings and specifications, including all incidental Work necessary to complete the Project.

1.04 SCHEDULE OF VALUES

A. General:

1. The lump sum price bid by the bidder in the bid form shall be for proper

completion of all the Work indicated, specified or indicated on the drawings or specified herein.

B. Schedule of Values:

1. The Contractor shall submit at the preconstruction conference six (6) copies of the Schedule of Values (Rev. 0) which shall subdivide the Work into its component items. The resulting breakdown of the Contract Price shall indicate the quantities and unit cost assigned to each item of Work, along with the associated labor, equipment and material costs for each item of Work. Labor costs shall also include the components outlined in the General Conditions as modified by the Supplementary Conditions. This breakdown may be adjusted by the Engineer if it feels the costs indicated for any part of the Work do not reasonably reflect the approximate value. Upon approval of a breakdown of the Contract Price by the Engineer, it shall be in accordance with the General Conditions, subject to the payment conditions indicated in Part 1.03 of this section.
2. In addition to being used as the basis for preparing progress payments, the Schedule of Values will be the basis for negotiations concerning additional work or credits which may arise during the construction.
3. If any cost breakdown item is found to be unbalanced by more than 5 percent, the Owner will have the right to pay the Contractor a reasonable value for work performed and redistribute the cost breakdown as in its opinion is fair and reasonable.
4. For items of Work which will be performed over a period of more than one (1) month, the cost breakdown shall be in sufficient detail of quantity and unit price so that progress payment estimates may be prepared on the basis of the amount of Work performed during that period and not on percentages complete.
5. At a minimum, cost shall be in sufficient detail to indicate separate amounts for each Technical Section of the Specifications.
6. Contractor may include an item for bond, insurance, temporary facilities and job mobilization only if the bid schedule does not list a "Mobilization Pay Item."
7. The Schedule of Values shall show the purchase and delivery costs for materials and equipment that the Contractor anticipates it may request payment for prior to their installation.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 010120

SECTION 010400

CONSTRUCTION COORDINATION AND SEQUENCING

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. The Work under this Section includes all measures necessary to schedule construction operations and coordinate with the Owner's operations personnel during the course of construction.

1.02 RELATED WORK

- A. The provisions of this section apply to all phases of the Project.

1.03 SYSTEM DESCRIPTION

- A. The Owner currently operates an existing wastewater treatment plant named the Fritz Island Wastewater Treatment Plant which serves fourteen (14) municipalities and has a rated capacity of 28.5 million gallons per day. Treated effluent is discharged to the Schuylkill River.

1.04 REFERENCES (NOT APPLICABLE)

1.05 SUBMITTALS

- A. The Contractor shall submit a schedule of operations prior to mobilization detailing all proposed measures during the course of construction.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION

- 3.01 Normal plant operational hours is between 7 a.m. and 4 p.m. However, as indicated in Specification Section 132000, should the Contractor elect to operate a complete mobile belt filter press system for dewatering residuals prior to hauling, then the operation of the mobile belt filter press system shall be coordinated with the operation of the Owner's belt filter press sludge dewatering system as defined in Paragraph 1.6 Maintenance of Continuous Operation of Specification Section 132000.

- 3.02 The Contractor shall perform all preliminary preparatory work and have all labor, material, and equipment present so as to minimize any utility service interruptions as practical. The exact length of time permitted for any specific proposed interruption of service shall be in

accordance with this specification and as approved by the Engineer.

- 3.03 The Contractor shall provide all labor, equipment, and material necessary for completion of the proposed work with a minimum of interruption to utility services and to Owner's site access.
- 3.04 The Contractor shall not interfere with the Owner's employees in performance of any work that they may consider necessary to maintain the facility water flow and operation.
- 3.05 The Contractor shall provide for the respective manufacturers' representative to provide installations to Owner's personnel related to the operation and maintenance of each equipment/system after testing has been successfully completed but prior to placement into service. The instruction shall be provided for the minimum times specified herein. Two copies of the O&M manuals must also be available to Owner at least three (3) weeks prior to starting the instruction and use by the Owner's personnel. The instruction shall be provided at no additional cost to Owner.

3.06 CONSTRUCTION SEQUENCING

- A. Construction sequence for the subject Work shall be submitted for Engineer review and approved prior to commencement of any Work.
 - B. In order to implement the construction required under this Project, a detailed staging plan shall be developed by the Contractor for review and approval by the Owner and Engineer.
 - C. The Contractor shall be aware that some of the proposed equipment may have long delivery lead times. Therefore, the Contractor shall promptly prepare and submit shop drawings and order approved equipment in a timely manner to comply with the contract deadlines.
 - D. The construction staging sequence to be submitted by the Contractor shall permit installation of the proposed equipment under this Contract with no disruption of treatment plant operations. The sequence shall be designed to meet the Owner's requirement to have the treatment plant operational at all times. The Contractor may only modify the approved sequencing if approved by the Engineer and Owner.
- 3.06 The Contractor must provide the Engineer and Owner with written notification at least 72 hours prior to the initiation of Work identified in the construction staging plan. The Owner reserves the right to reasonably postpone such Work if it may interfere with plant operations. The Contractor shall not make any claims for cost or schedule delays on this account.

- 3.07 The proposed digester cleaning Project Work is to be executed in an operating facility. Access to the site and structure for removal and replacement is limited. The Contractor shall take into account the limitations of the construction staging and physical size of the Site when estimating expected productivity, establishing a construction schedule, and delivery/storage of equipment and materials.
- 3.08 A proposed General Schedule of Work to be submitted by the Contractor shall coincide with its detailed sequence of Construction. The Contractor must develop its own schedule that will provide for completion of all Work in this Contract within the allocated time.
- 3.05 The Contractor shall not interfere with the employees, suppliers or contractors of the Owner in performance of any work it considers necessary to maintain the plant flow and operations. Where construction operations obstruct or otherwise hinder access to areas necessary for plant operations, the Contractor shall provide safe access for plant personnel. This shall include, but not be limited to, the construction of ladders, walkways, handrails, and temporary bridges or other means of access. All such areas shall be adequately lighted for safe night-time access.

END OF SECTION 010400

SECTION 012020

PROGRESS MEETINGS

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. The Contractor and/or Contractor's representatives shall attend regularly scheduled Progress Meetings held for the purpose of coordinating the execution of the Work. The Engineer will preside at the Progress Meetings.
- B. The proceedings of these meetings will be recorded by the Engineer and the Contractor will be furnished a reasonable number of copies of the meeting minutes.
- C. During the progress meeting, the Contractor shall provide updated schedules to the Engineer concerning its plans for carrying out each part of the Work.
- D. The Contractor shall provide a list of all items which are impacting the completion of the Work (i.e. decisions required, easements required, shop drawing approvals required, etc.). As the Work progresses, the Contractor's actual progress rate will be compared to the scheduled progress rate.
- E. The Contractor's representatives at these meetings shall be empowered to make binding decisions regarding all matters pertaining to the Work and to make definite reports as to status and anticipated progress rate.
- F. Progress meetings shall be scheduled every two weeks and more frequently if the Engineer decides more frequent meetings are required.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION (NOT APPLICABLE)

END OF SECTION 012020

SECTION 012100

PRECONSTRUCTION CONFERENCE

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Requirements for the Contractor to attend a preconstruction conference.

1.02 SYSTEM DESCRIPTION

- A. Procedures - A preconstruction conference will be held at a time and location set by the Engineer to establish various procedures that shall be followed for the duration of the construction period. The Engineer will preside at the preconstruction conference and will prepare for distribution minutes that describe the major topics of discussion.
- B. Agenda - In addition to the items that will be reviewed in accordance with the General Conditions, as modified by the Supplementary Conditions, the preconstruction conference agenda will include, but not be limited to:
 - 1. Designation of the Contractor's responsible personnel and phone numbers to be used in event of an emergency during non-working hours.
 - 2. Disclosure of the Contractor's intended suppliers, vendors, fabricators and major subcontractors.
 - 3. Procedures for the implementation of Field Orders and Change Orders.
 - 4. The Contractor's insurance.
 - 5. Procedures for contacting and requirements for providing access for emergency service providers.
 - 6. Site security.
 - 7. Housekeeping.
 - 8. Field offices.
 - 9. Record drawings.
 - 10. Job site coordination.

11. Protection of utilities.
12. Contractor's proposed project schedule.
13. Submittals stressing completeness and schedule.
14. Substitutes.
15. Payments for excessive submittals and schedule.
16. Daily reports.
17. Schedule of Progress meetings.
18. Forms to be supplied by the CONTRACTOR.
19. Schedule of Values.
20. Payment procedures and forms.
21. Shop drawing schedule.
22. Other topics pertinent to the Work that may be presented by conference attendees.

C. Preconstruction conference attendees will be as follows:

1. Owner
2. Engineer
3. Contractor and major Subcontractors
4. Governmental agency representatives, utility owner representatives, and other parties who may have control of, or may be affected by the Work.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION (NOT APPLICABLE)

END OF SECTION 012100

SECTION 013000

SUBMITTALS

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Submittal procedures.
- B. Action on submittals.
- C. Shop Drawings.
- D. Product data.
- E. Samples.
- F. Manufacturers' instructions.
- G. Manufacturers' certificates.
- H. Construction progress schedules.
- I. Construction photographs.
- J. Proposed products list.
- K. Submittals specified in other Documents/Sections.

1.02 SUBMITTAL PROCEDURES

- A. Transmit each submittal with Construction Manager accepted form.
- B. Number each submittal. Number shall consist of the following parts, each separated by a dash:
 - 1. Contract number.
 - 2. Six-digit Specification Section number.
 - 3. Two-digit sequence number starting for each Specification Section with 01 and continuing with 02, 03, etc., for subsequent submittals with the same Specification Section number.
 - 4. Use the fourth part of the number only for resubmittals. For the first resubmittal of a previous submittal, add -R1 to the previous number. For the second resubmittal, change to -R2, and so on.

As an example of the numbering process for Contract Number 1, the third submittal under Section 132000 would be numbered 1-132000-03 and the second resubmittal of this same submittal would be numbered 1-132000-03-R2.

- C. Identify Project, Contractor, Subcontractor, or supplier. Identify pertinent Drawing sheet and detail number(s), and Specification Section number, as appropriate.
- D. Apply Contractor's stamp, signed or initialed certifying that review, verification of Products required, field dimensions, adjacent construction Work, and coordination of information, is in accordance with the requirements of the Work and Contract Documents. Stamp shall have the following format:

Approved for Contract Requirements

The Contractor's signature below indicates that this Submittal has been checked with the Drawings, Specifications, and site conditions and found to meet all requirements of same including dimensions, and that the Contractor's guarantee fully applies to the Product(s) covered.

RE: Project _____

Submittal Number _____

Drawing Sheet Number _____ Detail Number _____

Deviations from Contract Documents? No ___ Yes ___ (letter attached)

By: _____

Signature (Contractor)

Contractor's Name _____

- E. Submittals without Contractor's stamp of approval will not be reviewed by Construction Manager and will be returned to Contractor for resubmittal. Resubmittal will be considered as No. 1 and all others will be at Contractor's expense.
- F. Schedule submittals to expedite the Project, and deliver to Construction Manager at business address. Coordinate submission of related items.
- G. Submit letter which specifically identifies deviations from Contract Documents. Identify Product or system limitations which may be detrimental to successful performance of the completed Work.

- H. Where deviations from Contract Documents will affect the Work of another Contractor, the Contractor making the submittal shall attach a letter from the other Contractor(s) stating that the deviation will either:
 - 1. Have no effect on the other Contractor's Work; or
 - 2. Have an effect on the other Contractor's Work and that the Contractor making the submittal has agreed to pay all extra costs associated with the deviation.
- I. Provide space for Contractor and Construction Manager review stamps.
- J. Revise and resubmit submittals as required. Identify all changes made since previous submittal.
- K. Submit a minimum of 6 copies of shop drawings. Two executed copies will be returned to the contractor, two go to LCA and two are for the construction manager and engineer. If additional copies are required by the Contractor, submit the additional sets and note number requested for return.
- L. Distribute copies of reviewed submittals to concerned parties. Instruct parties to promptly report any inability to comply with provisions.

1.03 ACTION ON SUBMITTALS

- A. Construction Manager's Action: Where action and return is required or requested, Construction Manager will review each submittal, mark with the action taken, and return to Contractor within 14 calendar days of receipt from Contractor. Where submittal must be held for a period in excess of that indicated above, Contractor will be so advised by Construction Manager.
- B. Submittals returned with "APPROVED" action indicate that the information submitted was found to be in conformance with the design concept and in compliance with the requirements of the Contract Documents. The Contractor remains responsible for work-related errors, deviations, and discrepancies in the submittal, but may proceed with performance of the work covered by the submittal.
- C. Submittals returned with "APPROVED AS NOTED" action indicate that the information submitted was found to be in conformance with the design concept and in compliance with the requirements of the Contract Documents, provided the noted clarifications or corrections are incorporated in the Work and in the Record Documents. The Contractor remains responsible for work-related errors, deviations, and discrepancies in the submittal, but may proceed with performance of the work covered by the submittal. Resubmission of information is not required.
- D. Submittals returned with "RETURNED FOR CORRECTION" action indicate that:
 - (1) information submitted is at least partially not in conformance with the design concept,
 - (2) information submitted is at least partially not in compliance with the

requirements of the Contract Documents, (3) submittal is incomplete and does not include all items required by the individual Specification Sections, or (4) certifications or computations required by the individual Specification Sections have not been included with the Shop Drawings and Product data. Construction Manager will note the deficiencies or corrections required, and return the submittal to the Contractor. Performance of the work covered by the submittal shall not proceed until corrected information is submitted and approved.

- E. Submittals returned with “NOT AS SPECIFIED” action indicate that the Construction Manager interprets the information submitted to be not in conformance with the design concept or not in compliance with the Contract Documents. This action may also indicate non-compliance with the Contractor’s responsibility to review information and submit notification of deviations and discrepancies for the Construction Manager’s review. Performance of the work shall not proceed until new information is submitted and approved.
- F. Review Action does not establish submitted information as a Contract Document, a Change Order, or authorization to deviate from the Contract Documents.
- G. For all re-submittals except the first, Construction Manager and its consultants will record man-hours required for review of the re-submittal. As an example, the submittal numbering system in Article 1.02 of this Section 013000, the second submittal numbered 1-132000-03-R2 will be subject to man-hour tracking and review charges. At the discretion of the Construction Manager, Contractor may be charged for review of such repeat re-submittals at Construction Manager’s (and its consultant’s) current hourly rates. Charges for repeat re-submittals will be subtracted from Contractor’s next progress payment.

1.04 SHOP DRAWINGS

- A. Submit one set of **REPRODUCIBLE** drawings, plus one print, which will be retained by the Construction Manager. Construction Manager will submit three (3) copies of reviewed documents to Contractor for his/her use.
- B. After review, distribute in accordance with Article on “Submittal Procedures” above and provide copies for Record Documents described in Section 017000 - Contract Closeout.
- C. Design Calculations: When required by individual Specification Section, Contractor shall submit with the shop drawing submittal a “Letter of Assurance” from the Product manufacturer/supplier, bearing the seal and signature of a professional engineer registered in the Commonwealth of Pennsylvania, which shall read as follows:

“As the professional engineer responsible for the design of _____ (insert actual item name), I hereby certify that the design calculations include all

parameters indicated in the Construction Documents. In addition, I hereby certify that the Product shop drawings have incorporated all elements of my calculations.”

1.05 PRODUCT DATA

- A. Submit the number of copies which the Contractor requires, plus three (3) copies, two (2) of which will be retained by the Owner and one by the Construction Manager.
- B. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers’ standard data to provide information unique to this Project.
- C. After review, distribute in accordance with Article on “Submittal Procedures” above and provide copies for Record Documents described in Section 017000 – Contract Closeout.

1.06 SAMPLES

- A. Submit actual samples instead of printed material to illustrate functional and aesthetic characteristics of the Product, with integral parts and attachment devices.
- B. Submit actual samples of finishes from the full range of manufacturers’ standard and custom colors, textures, and patterns for Owner’s selection.
- C. Include identification on each sample, with full Project information.
- D. Large, bulky samples may be submitted to the Resident Project Representative at the Project site. Whenever a sample is submitted at the Project site, immediately notify the Construction Manager of this submittal in writing.
- E. Samples shall be submitted in a single submittal in order to coordinate colors and textures.

1.07 MANUFACTURER’S INSTRUCTIONS

- A. When specified in individual Specification Sections, submit manufacturers’ printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, in quantities specified for Product data.
- B. Identify conflicts between manufacturers’ instructions and Contract Documents.

1.08 MANUFACTURER’S CERTIFICATES AND WARRANTIES

- A. When required by individual Specification Sections, submit manufacturers’ certificate to Construction Manager in quantities specified for Product data.
- B. Indicate Product conforms to or exceeds specified requirements. Submit supporting computations, reference data, affidavits, and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or Product, but must be acceptable to Construction Manager.
- D. When required by individual Specification Sections, include a “Letter of Assurance” specified in Article 1.04.
- E. Submit sample of Manufacturer’s Warranty to Construction Manager with shop drawings submittal, in quantities specified for Product Data. Supply warranty for each product unless otherwise instructed by Construction Manager.
- F. Submit steel Product certification on the forms attached to this Project Manual as Appendices A-D.

1.09 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit four (4) copies of progress schedule for Construction Manager’s review. Revise and resubmit as required.
- B. Submit revised schedules with each Application for Payment, identifying changes since previous version.
- C. Indicate submittal dates required for Shop Drawings, Product data, samples, and Product delivery dates.
- D. Do not include extensions to the Contract Time in revised progress schedules until such extensions have been approved by Construction Manager in accordance with Article 12 of the General Conditions.
- E. Failure to submit an initial or revised progress schedule, acceptable to the Construction Manager, before or with each Application for Payment will be considered a substantial violation of the Contract Document provisions. In accordance with Paragraph 14.7 of the General Conditions, the Construction Manager may recommend that the Owner withhold payment of all or part of the amount shown in an Application for Payment until an acceptable progress schedule is submitted.
- F. Submit on a bar chart showing, for each activity on each submittal:
 - 1. Anticipated Start Date.
 - 2. Anticipated Completion Date.

3. Actual Start Date.
4. Actual Completion Date.
5. Percentage of activity completed on date of each submittal.

1.10 CONSTRUCTION PHOTOGRAPHS

- A. Each month submit photographs to Construction Manager with Application for Payment.
- B. The General Contractor shall submit progress photographs in electronic format, in USB or disc form, per LCA direction. Prints and negatives are not required.
- C. Prior to submission of the first construction photographs, submit sample photograph to Resident Project Representative for approval. Approved sample will serve as the standard of quality for all subsequent photographs.
- D. Take photographs no earlier than ten (10) days prior to submitting.
- E. Take a minimum of four (4) photographs showing work in progress and indicating work accomplished since last photographs were taken.
- F. Identify the photographs with date, time, orientation, and project identification.

1.11 PROPOSED PRODUCTS LIST

- A. Within 20 days after Commencement of Contract Time as defined in Paragraph 2.3 of the General Conditions, submit four (4) copies of complete list of major products proposed for use.
- B. Include name of manufacturer, trade name, model or catalog designation and, where applicable, reference standard.

1.12 GENERAL SUBMITTAL LIST

- A. Work Sequence
- B. Plan for Hauling and Disposal of Sludge
- C. Schedule of Values
- D. Application for Payment
- E. Temporary Sludge Dewatering Equipment
- F. Process Piping
- G. Reports on Tests and Inspections
- H. Request for Substantial Completion Inspection
- I. Request for Final Completion Inspection

J. Record Documents

PART 2 – PRODUCTS

NOT APPLICABLE TO THIS SECTION

PART 3 – EXECUTION

NOT APPLICABLE TO THIS SECTION

END OF SECTION 013000

SECTION 013100

PROGRESS SCHEDULE

PART 1 – GENERAL

1.01 SCHEDULE OF WORK AND SEQUENCE OF CONSTRUCTION

- A. The Contractor shall submit a progress schedule and sequence of construction within ten (10) days of Contract award, outlining the following information:
1. Sequence of Construction indicating dates of beginning and completion of each task and critical path of construction.
 2. Material ordering, delivery dates and lead times.
 3. Shop drawing submittal dates.
 4. Site visits by material suppliers and recyclers.
 5. Project Completion date.

The schedule shall also include completion of all phases of required Work as indicated in this Contract within allocated completion time.

- B. Per the schedule as outlined above, the Contractor shall furnish, for approval, a progress schedule showing the order in which the Contractor proposes to prosecute the Work, the dates on which it shall start the various work stages, operations and principal items of Work, including furnishing material submittals, procurement of materials, the quantity and kinds of equipment and character of the labor force, and the contemplated dates for completing the same. The progress schedule shall clearly outline the intended maintenance of traffic, pollution control measures, and such other information as required by the Contract Documents. The progress schedule shall be in the form of a bar chart.
- C. Construction operations shall not begin until the above schedule has been approved by Engineer. After the progress schedule has been approved, the Contractor shall not deviate without first notifying the Owner and Engineer in writing. The approved progress schedule shall be designated as “Revision O” progress schedule. Interim Revision O submittals before approval shall be identified as 1, 2, 3, etc.
- D. No progress payments will be made until the Revision O progress schedule is approved by Engineer.

- E. General sequence of construction is shown on plans. The Contractor shall prepare a detailed sequence encompassing the sequence of construction shown on plans.

1.02 STAGING

- A. The Contractor must schedule the Work to meet all interim and final deadlines as outlined in the Contract Documents.

1.03 PROSECUTION OF THE WORK

- A. The Contractor shall provide sufficient material, equipment, and labor to ensure the completion of the Project in accordance with the Contract Documents and within the Contract Time.
- B. If the Contractor falls behind the approved "Revision O" progress schedule, the Contractor shall submit a recover schedule for approval.
- C. Should the prosecution of the Work be discontinued for any reason, the Contractor shall notify the Engineer, in writing, prior to discontinuing Work and again at least 24 hours in advance of resuming operations.
- D. The Contractor shall arrange and prosecute the Work so that each successive construction operation at each location shall follow the preceding operation as closely as the requirements of the various types of construction permit.
- E. The Contractor, with the prior written approval of the Engineer, may be permitted to Work extended hours, Saturday/Sunday, holidays, and nights as necessary to meet the schedule at no increase to the Contract Price.

1.04 INTENT, RESPONSIBILITY AND TIME

- A. Scheduling of construction is the responsibility of the Contractor. Therefore, it is the Contractor's responsibility to determine the most feasible order of Work commensurate with the Contractor's abilities and the Contract Documents. The purpose of the progress schedule is to ensure adequate planning and execution of the Work, to assist the Engineer in appraising the Contractor's compliance with the Contract Documents and to evaluate progress of the Work. The approved "Revision O" progress schedule will be used for measuring extensions or reductions of Contract Time pursuant to the General Conditions, as modified by the Supplementary Conditions.
- B. It is not intended that the Engineer, by approving the progress schedule, agrees that it is reasonable in all respects or that following the progress schedule can

result in a timely completion of the Project. The progress schedule is not a part of the Contract.

- C. Employer's approval of a progress schedule, that reflects final or interim completion dates later than those specified in the Contract Documents shall not constitute a waiver or change to the Contract Documents. Unless modified by Change Order, the Contract Time shall not be extended as a result of the Contractor's progress schedule and the dates identified in the Contract Documents shall, at all times, take precedence over the Progress Schedule in the event of an inconsistency. Where the progress schedule reflects a completion date earlier than that specified as the contract time, the Engineer may approve such schedule with the Contractor specifically understanding that no claim for additional Contract Time or compensation shall be brought against the Owner as the result of failure to complete the Work by the earlier date shown on the progress schedule.

1.05 ACCELERATION AND DEFAULT

- A. If, in the opinion of the Engineer, the Contractor falls behind its progress schedule and cannot complete the Work within the Contract Time, the Contractor shall take such steps as may be necessary to improve its progress. The Contractor's failure, refusal, or neglect to take appropriate recovery actions, or, in the alternative, give written notice of a day, and, in either case, to follow up with a timely Proposal Schedule, as set forth in this Section and the General Conditions, shall be reasonable evidence that the Contractor is not prosecuting the Work with due diligence. Any such failure, refusal, or neglect by the Contractor shall give sufficient basis to the Owner, with the Engineer's advice, to elect any of the following: (a) demand adequate written assurance of due performance, (b) at the Owner's sole discretion, order alternate schedule recovery actions.
- B. Failure of the Contractor to comply with the requirements of the Engineer under this Section is grounds for the determination that the Contractor is not prosecuting the Work with such diligence as to ensure completion within the time specified. Upon such determination, the Engineer may terminate the Contractor's right to proceed with the Work or any separable part hereof in accordance with this Specification and process a Change Order for corresponding reduction of Contract Price in accordance with Article 10 of the General & Supplementary Conditions.

1.06 TYPES OF PROGRESS SCHEDULES

- A. All progress schedules shall comply with the foregoing provisions of this Section. Regardless of the type of progress schedule used, the Contractor shall supply the Engineer with a monthly update of the project progress schedule.

- B. A revolving three (3) week look ahead schedule shall be prepared and submitted on a weekly basis at 8 a.m. each Monday. This schedule shall be broken down for the Engineer to detail planned work by task for the Contractor, subcontractor, manufacturer and Owner. Also included shall be dates for material delivery, start-up and testing. Anticipated manpower requirements shall be assigned by work task.

PART 3 – EXECUTION (NOT APPLICABLE)

END OF SECTION 013100

SECTION 015000

TEMPORARY FACILITIES

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. The Contractor shall provide all temporary utilities, safe access, and office facilities necessary for the prosecution of the work.
- B. The Contractor is responsible for providing all communication services, including phone and fax. The Owner will not provide these services.
- C. The City of Reading will pay for electricity for construction purposes during the work.

1.02 RELATED WORK (NOT APPLICABLE)

1.03 SYSTEM DESCRIPTION (NOT APPLICABLE)

1.04 REFERENCES (NOT APPLICABLE)

1.05 SUBMITTALS

- A. Details of any temporary modifications or interfacing with the Owner's facilities.
- B. General layout of temporary facilities locations.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION

3.01 TEMPORARY HEAT

- A. The Contractor shall provide, when required, heating apparatus with the necessary fuel to protect and/or dry out the work. The stored materials and finished work shall be protected at all times from damage by the elements.

3.02 ELECTRICAL SUPPLY

- A. The Owner will pay for the Contractor's electrical usage during the Work. The Contractor shall be responsible for all temporary connections, wiring, and/or service extensions required to facilitate construction.

3.03 WATER SUPPLY

- A. The Contractor shall pay all fees, obtain necessary permits and have meters installed for water as may be required for the prosecution of its work. Water usage charges shall be paid by the contractor.

3.04 SANITARY FACILITIES

- A. The Contractor shall provide suitable temporary facilities and enclosures for the use of workmen and shall maintain same in a sanitary condition and remove same when directed by the Owner.
- B. Permanent plumbing fixtures within the Owner's existing buildings shall not be used during construction.

3.05 TEMPORARY FIRE PROTECTION

- A. Fire extinguishers shall be portable, dry chemical or carbon dioxide filled and shall be the recommended type for extinguishing Class B and Class C fires.
- B. When working in existing structures the Contractor shall locate and become familiar with Owner's existing fire protection facilities. Contractor shall determine the adequacy of existing facilities relative to the Work being performed and provide additional standby fire protection equipment, as may be necessary.
- C. Fire extinguishers shall be new, or shall have been inspected and certified for proper operation within the previous twelve months.

3.06 SAFETY PROVISIONS

- A. To protect persons from injury and to avoid property damage, adequate barricades including flasher and reflectorized construction signs, torches, red lanterns and guards as required shall be placed and maintained during the progress of construction work and until it is safe for traffic and pedestrians to use the trenched area. No area shall be left open, impassable or unsafe through the night. The job site shall be left in a neat and satisfactory condition at the end of each day. The requirements of this Section are in addition to any requirements of the federal, state or local laws, rules, regulation, ordinances or any requirements found elsewhere in the Contract Documents.

END OF SECTION 015000

SECTION 01561

NOISE CONTROL

PART 1 - GENERAL

1.01 WORK INCLUDED

The Contractor shall control noise as specified below.

1.02 GENERAL

- A. The Contractor shall control the noise generated by its construction activities.
- B. Noise caused by construction activities shall not exceed the levels permitted by local regulations: 65 dBA at boundary of construction during the hours 7:01 AM to 9:59 PM; 50 dBA at boundary of construction during the hours 10:00 PM to 7:00 AM.
- C. All construction equipment powered by an internal combustion engine shall be equipped with a properly maintained muffler. Air compressor shall be operated in accordance with the manufacturer's instructions for proper noise abatement. Air-powered equipment shall be fitted with pneumatic exhaust silencers.
- D. Stationary equipment powered by an internal combustion engine shall be enclosed by a temporary noise barrier placed around the equipment. Temporary noise barriers shall be constructed of plywood or tongue and groove boards with a noise absorbent treatment on the interior surface (facing the equipment) as approved by the Engineer.
- E. A field test shall be performed, witnessed and accepted by the Engineer. The Contractor shall furnish a calibrated meter to record readings. The Contractor shall be required to implement appropriate measures to meet noise limitation of Paragraph 1.02B of this Section at no additional cost to the Owner.

END OF SECTION 01561

SECTION 017000

CONTRACT CLOSEOUT

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. This Section specifies each Contractor's administrative and procedural requirements for project closeout, including but not limited to:
 - 1. Closeout procedures.
 - 2. Final cleaning.
 - 3. Adjusting.
 - 4. Project record documents.

1.02 RELATED WORK (NOT USED)

1.03 RECORD DOCUMENTS

- A. Maintain on site, one set of the following documents; actual revisions to the work shall be recorded in these documents:
 - 1. Contract Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change Orders and other Modifications to the Contract.
 - 5. Reviewed shop drawings, product data, and samples.
 - 6. Progress photos
- B. Store Record Documents separate from documents used for construction.
- C. Record information concurrent with construction progress.
- D. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
 - 1. Manufacturer's name and product model and number.

2. Product substitutions or alternates utilized.
 3. Changes made by Addenda and Modifications.
- E. Contract Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
1. Measured depths of foundations in relation to finish main floor datum.
 2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the work.
 4. Field changes of dimension and detail.
 5. Details not on original Contract Drawings.
- F. Progress Photos
1. The Contractor shall provide photo documentation of the Work progress, from project mobilization until final completion. Progress photos shall be part of the Record Documents required for Contract Closeout.
 2. Additional photo documentation may be required by the Engineer to document inaccessible locations or obscured conditions not readily visible to the Owner.
 3. Photo documentation shall be performed using a digital camera of adequate resolution and good quality.
 4. Photo documentation shall be provided during the project as requested by the Owner or Engineer, and at Contract Closeout.
 5. Photo documentation shall be provided in electronic format as pdf files.
- G. Submit all record documents to Engineer with Application for Final Payment, in format type and number of copies/sets as required by the Engineer for Contract Closeout.

1.04 CLOSEOUT PROCEDURES

- A. Submit written certification that Contract Documents have been reviewed, work has been inspected and that work is complete in accordance with Contract Documents and ready for Engineer's inspection.
- B. Provide submittals to Engineer that are required by governing or other authorities.
- C. Submit Application for Final Payment identifying total adjusted Contract Sum, previous payments and sum remaining due.

1.05 FINAL CLEANING

- A. Complete the following operations to the satisfaction of the Owner before requesting inspection for Certificate of Substantial Completion.
1. Demobilization: Remove all temporary dewatering equipment, piping, containers and temporary connections.
 2. Site Cleanup: Remove and clean up all debris, construction waste, refuse, rubbish, spillage and any stockpiles materials.
 3. Mechanical Restoration: Restore all sludge digestion equipment, structures, and related devices to pre-construction conditions. Replace and seal all removed access hatches, manhole covers and opened penetrations. Replace all removed mechanical equipment. Assist Owner in re-starting any affected mechanical equipment and promptly repair any equipment damaged during construction.
 4. Site Restoration: Restore site to pre-construction conditions; promptly repair/replace any landscaping, turf, or pavement damage caused by construction. Sweep paved areas broom clean; remove stains, spills and other foreign deposits. Rake grounds that are neither paved nor planted, to a smooth even-textured surface.
 5. Start-up: Contractor shall be present during the re-filling and re-starting of each digester tank in event mechanical issues due to the Work are encountered, which require immediate repair to the satisfaction of the OWNER.

1.06 ADJUSTING

- A. Adjust operating products and equipment to ensure smooth and unhindered operation.

END OF SECTION 01700

SECTION 01710

FINAL CLEANING

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. During the course of construction, all efforts shall be made to maintain a neat and orderly project. Clean-up shall be pursued on a regular basis and in conjunction with the construction. The Contractor shall be responsible for clean-up during the term of the Contract with the full cooperation of all subcontractors. Upon completion of all construction, final clean-up shall include removal of all excess materials, equipment, backfill, etc., and the site shall be restored to a condition equal to or better than that existing prior to construction. Should the Contractor fail to remove such material, equipment and supplies, the Owner shall have the right to remove them at the expense of the Contractor.

- B. At the completion of construction, the Contractor shall tear down and remove all temporary structures unless expressly directed otherwise by the Owner or the Engineer, and shall remove remaining rubbish of all kinds from all Contract structures and from the Site occupied during the progress of the Work. The Contractor shall remove all concrete and ballast drippings and shall leave the Site and any adjacent property which may have been affected by the Work in a neat condition as determined by the Engineer. All residues of construction activities such as paint drippings, oil stains, etc., shall be removed. All structures and parts thereof constructed by the Contractor shall be thoroughly cleaned and left in first-class conditions.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION (NOT APPLICABLE)

END OF SECTION 01710

**SECTION 132000
CLEANING OF ANAEROBIC DIGESTERS**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- Drawings and General Provisions of the Contract, including Supplementary Specifications and Division 1 Specification Sections, apply to this Section.
- The City will perform a laboratory sludge analysis and provide a report to the Contractor. The laboratory report will serve as a representative sampling of the sludge in the secondary digesters, to be used by the Contractor for informational purposes only; it is not a guarantee of the quality of the sludge to be removed.

1.2 SUMMARY

- As specified hereinafter, the Contractor shall furnish all the necessary labor, materials, and equipment, to remove all grit, screenings, sludge, macro-fauna (snails) and floatables from the two (2) existing secondary anaerobic digesters for disposal to a permitted site. The Contractor shall coordinate all phases of the work included herein with both the Owner and the Engineer.
- Hereinafter, the grit, screenings, sludge, macro-fauna (snails) and floatables will be referred to simply as residuals. Only one (1) digester will be made available to the Contractor at any one (1) particular time for cleaning. Secondary Anaerobic Digester Number 4 shall be cleaned first.
- The Contractor may utilize any available sources of electrical power and effluent water as furnished by the Owner. Electrical power is available at 480 Volt, 3 Phase, 60 Hertz, and 100 amps. The Owner will provide a disconnect switch for the Contractor for temporary electrical power tie-in. Effluent water is available at a pressure of 80 psig and the Contractor shall coordinate the usage of effluent water for his cleaning operations with the Owner. The Contractor shall furnish and install all connections, wiring, electric meter, circuit breakers, transformers, etc. as well as all pumps, piping, fittings, hoses, backflow preventers, etc. as required to complete the work.
- The digesters to be cleaned are covered tanks (floating covers), have a 75-foot inside diameter, and have conical shaped bottoms.
- As part of the anaerobic digester cleaning project, the Contractor shall also furnish all necessary labor, materials, and equipment to clean the existing 8-inch diameter supernatant pipe system for each digester beginning and including the wall penetration at elevation 188.5 feet to the top of the pipe at elevation 203.5 feet and down to and including the tee fitting on the existing 8-inch diameter supernatant pipe header at elevation 188.5 feet. All intermittent supernatant draw off wall connections and piping

located at elevations 193.25 feet and 198.0 feet shall also be cleaned. Refer to existing drawing number D-11447-80 for limits of cleaning. The Contractor shall submit his proposed cleaning procedure to the Engineer for approval prior to beginning work. If the Contractor elects to dismantle the existing piping for cleaning, then the Contractor shall furnish and install the necessary gaskets for all flanged connections.

1.3 ON-SITE RESIDUALS DEWATERING

- If the Contractor elects to utilize temporary on-site residuals dewatering equipment, a portable belt filter press is the preferred method of dewatering. The Contractor is responsible for providing all supporting equipment, connections, containers, and other temporary measures to facilitate the on-site residuals dewatering operation.
- The Contractor may propose alternative means of temporary on-site residuals dewatering for City consideration.
- All on-site temporary residuals dewatering equipment shall be housed in a weatherproof enclosure and provided adequate odor control.
- All temporary residuals dewatering equipment and supporting equipment proposed for use by the Contractor must be approved by the City and Engineer via the submittal process as outlined in Section 013000.
- The performance criteria for on-site residuals dewatering shall be a minimum cake solids percentage of 20%.
- Detailed information and additional requirements for on-site residuals dewatering can be found in Part 3.1 of this section.

1.4 NOTIFICATION OF START OF WORK

- The Contractor shall notify the Owner and the Engineer at least 14 calendar days in advance of his intention to start work.
- The Owner will notify the Contractor upon removing the tank from service and commencing gravity tank draining operations.
- The Contractor shall mobilize all temporary sludge dewatering equipment and related equipment required for cleaning operations in advance of the completion of gravity tank draining by the Owner.
- Upon completion of gravity tank draining by the Owner, the Contractor shall immediately begin operations to remove and dewater the remainder of tank contents that cannot be drained by gravity.

1.5 MILESTONE DATES

- The Contractor shall have a maximum of 30 calendar days per tank to perform and complete all cleaning activities and Alternate work (if directed), following the completion of tank draining and temporary sludge dewatering operations.

1.6 DISMANTLING OF EQUIPMENT

- The Contractor shall perform all necessary dismantling of the equipment and removal of parts to allow for access to the tank interior and performance of the work as specified.
- All equipment dismantling shall be incidental to the Work at no additional cost to the Owner.

1.7 REASSEMBLING OF EQUIPMENT

- All disturbed work shall be reassembled and left in first class working condition to the satisfaction of the City and Engineer.
- All removed manway covers shall be re-installed with new gaskets.

1.8 MAINTENANCE OF CONTINUOUS OPERATIONS

- The work performed for the cleaning of the tanks shall be conducted in such a manner that there will be a minimum of interference with the continuous operations of the existing plant and anaerobic digestion process. The Contractor is alerted to the fact that if he chooses to operate a mobile belt filter press for his cleaning operation, the existing wastewater treatment plant facility is sensitive to organic loading, in particular ammonia loading, from filtrate recycle flow from the belt filter press operation and that the Contractor shall coordinate his belt filter press operation with the operation of the Owner's belt filter press sludge dewatering system.
- The Owner operates the wastewater treatment plant in three (3) shifts. They are as follows:
 - Shift No. 1: 6AM through 2 PM;
 - Shift No. 2: 2 PM through 10 PM;
 - Shift No. 3: 10PM through 6 AM.

The Owner operates their belt filter press system during shifts 1 and 3, and therefore, if the Contractor elects to operate a mobile belt filter press system, the system can only be operated during Shift No. 2 hours.

- The Contractor is alerted to the fact that only one (1) secondary anaerobic digester may be taken out of service for cleaning at any one given time. Secondary Anaerobic Digester Number 4 shall be cleaned first. After Secondary Anaerobic Digester Number 4 has been cleaned, inspected, and placed back into operation, the Contractor may then begin the cleaning of Secondary Anaerobic Digester Number 5.

1.9 SCAFFOLDING

- Sufficient scaffolding must be maintained at all times necessary for safe working conditions, best quality work, and to permit adequate inspection by the Engineer after completion of tank cleaning. Scaffolding shall remain in place until the Engineer has completed his inspection.

1.10 POWER FACILITIES

- Plant power facilities will be made available to the Contractor but he shall provide all necessary extension leads, transformers, circuit breakers, tools and lights, and all other necessary equipment required for performance of the work. The Owner will provide a disconnect switch for the Contractor for temporary electrical power tie-in.

1.11 CODE AND STANDARDS

- All material and equipment must conform to the requirements of the Local Electrical Code, Occupational Safety and Health Administration (OSHA) of the U.S. Department of Labor, and the National Electric Code. In the case of conflict between the Local Electrical Code and other code, the more stringent code requirement shall prevail. All items of equipment shall comply with the current standards of the IEEE, NEMA, and AMSI. Wherever practical, the component parts shall bear labels indicating compliance with the requirements of the UL Inc.

1.12 CONFINED SPACE ENTRY REQUIREMENTS

- The digesters are confined spaces as defined by the Federal and State regulations governing confined space entry and safety procedures in such areas. The Contractor shall be responsible for compliance with NIOSH Standards, OSHA, and all applicable provisions of Local, State, and Federal codes pertaining to confined spaces in performing the cleaning work.
- The Contractor shall be responsible to furnish, install, and remove all necessary temporary lighting and ventilation when entering the digester. Temporary lighting and ventilation systems shall remain in place to permit adequate inspection by the Engineer after completion of tank cleaning and shall be removed after the Engineer completes his inspection.

1.13 HEALTH AND SAFETY PLAN (HASP)

- Prior to beginning any work, the Contractor shall submit to the Engineer a site-specific Health and Safety Plan (HASP). The HASP shall include, but not be limited to, the following:
 1. A brief description of the work to be performed under the contract, including contract number and title.

2. A project level organizational chart identifying the Contractors (and any subcontractors) workforce such as project manager(s), supervisor(s), tradesmen, laborer(s), etc. and their associated responsibilities, including the cell phone numbers of key personnel.
3. Specific work areas and their anticipated hazards.
4. Control measures required to protect workers from those hazards.
5. Surveillance methods and schedules of both walk-through surveys and in-depth safety audits to be performed on site.
6. Areas requiring personal protection equipment, types of personal protection equipment, and availability of personal protection equipment on site.
7. Medical monitoring and screening methods.
8. Emergency response procedures.
9. Copies of safety inspection check-off sheets to be used on a regular basis in evaluating the site and work methods.
10. Means and method to control emissions of dust and fibers from any building openings.
11. A detailed outline of the Contractor's employee training program and work procedures to demonstrate compliance with all applicable Federal, State and local laws and regulations.
12. An Emergency Evacuation Plan, specific to the plant and compatible with the location's existing evacuation plan. If the location's plan is not readily available, the Contractor's plan may be submitted as a supplement to the HASP at a later time. However, no work may start until the Contractor's plan is approved by the City.
13. A Spill Plan, detailing the Contractor's procedures in the event of a chemical or sludge spill at the work site, including a list of all chemicals to be stored on site by the Contractor.

If the work under this contract includes certain activities that typically require the implementation of health and safety measures (e.g. gas monitoring, confined space entry, hot work, excavation, work at heights, scaffolding, hazardous removal/disposal, lock-out/tag-out, etc.) the HASP shall include a detailed description of such activities and the associated health and safety measures to be undertaken by the Contractor in accordance with all applicable rules and regulations.

The Contractor shall submit six (6) copies of the HASP to the Engineer for approval. Acceptance of the plan by the City shall not impose on the City the responsibility for the

Contractor's health and safety program nor will it relieve the Contractor from any of its safety responsibilities.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 CLEANING METHOD

- The Contractor shall notify the Owner a minimum of 14 calendar days prior to the scheduled tank cleaning in order to allow time for the proper accommodations to be scheduled. Prior to the Contractor starting the work in each digester, the Owner shall make preparations by isolating the digester and pumping its volume down to the lowest possible level. At this time, the Contractor, in the presence of the Engineer and Owner, or their designee, shall measure the actual quantity of residuals to be removed. The payment for the volume of residuals to be removed will be based upon this measurement. Measurements shall be performed by the Contractor. Several measurements shall be taken from the digester roof to the top of the residuals surface, through the access manholes, observation ports, and the center port. The volume to be removed will be based upon the depth of the residuals as measured by the average level of residuals to the bottom of the cone of the digester. Payment will not be made for the removal of process water which was introduced into the digester by the Contractor for slurring. After this is performed, the digester shall be made available to the Contractor.
- Once the digester is made available to the Contractor, the Contractor shall furnish all the necessary labor, materials, and equipment to disconnect and remove the existing roof manhole covers and furnish and install the odor control and ventilation system and described hereinafter under Section "Portable Odor Control System".
- The Contractor shall furnish all the necessary labor, materials, and equipment to slurry the digester materials and then pump the residuals (including the slurry water that the Contractor introduces) from the digester. If desired, the Contractor may furnish, install, and operate a complete mobile belt filter press dewatering system in a weatherproof enclosure, including, but not limited to the following: trailer-mounted belt filter press(es), conveyors, sludge feed pumps, piping systems, polymer mixing and holding tanks, filtrate and service water piping systems, back-flow preventers, power cables, lighting, control systems, and all accessories and tools for a complete operational system. All dewatering operations shall occur on the plant grounds at a location approved by the Engineer and Owner and the hours of operation shall be coordinated with the Owner as required in paragraph 1.6. The proposed total rate and the quality at which the Contractor returns filtrate to the Owner's existing filtrate pump system, either from one belt filter press or any combination of belt filter presses, shall be submitted to the Owner by the Contractor in writing and agreed to by the Owner prior to the Contractor commencing with the dewatering operations. The Contractor shall furnish and install a flow meter and a sampling valve on the filtrate return line in order for the

Owner and Engineer to monitor the quantity and quality of the filtrate flow being returned to the Owner's existing filtrate pump system.

- For mobile on-site sludge dewatering by the Contractor, the total rate at which the Contractor returns filtrate to the head of the plant will be monitored by the Owner and shall not exceed 250 gallons per minute. The maximum Total Suspended Solids (TSS) concentration shall be 1000 mg/l. The maximum Ammonia (NH₄) concentration shall be 250 mg/l.
- In order to ensure an adequate water supply for slurring and/or for the belt filter press operation, the Contractor may utilize the plant's process effluent water system. Use of such system shall be coordinated with the Owner. The Contractor shall furnish and install booster pumps as necessary in order to ensure an adequate water supply. The existing effluent water system operates at a pressure of 80 psig.
- All residuals shall be transported and disposed of by the Contractor to a facility that is fully permitted to receive such materials.
- The Contractor shall install a temporary lighting system(s) to fully illuminate the entire work area, including containers and mobile belt filter press. Temporary lighting system shall be removed upon completion of the work.
- Upon completion of his work, the Contractor shall restore the work area to the condition prior to the commencement of work.

3.2 CHARACTERISTICS OF GRIT, SCREENINGS, SLUDGE, AND FLOATABLES

- It is expected that the residuals the Contractor removes from the digesters (grit, screenings, sludge, macro-fauna (snails) floatables, etc.) are not hazardous waste. All sludges are anaerobically digested, and are comprised of a combination of primary and humus sludge from the trickling filters. Grit consists of sand, cinders, small stones, etc. Screenings consist of rags, sticks, etc. Floatables consist of oils, grease, etc., and will also include a significant amount of plastic due to the scum pumping operation. Macro-fauna (snails) are a result from the biological process operation of the trickling filters and may have an impact on the Contractor's dewatering operations in terms of pumping and equipment wear. It is estimated that a layer of approximately 8 to 10 feet within each digester contains snails.
- It is expected that some of the residual material will require manual removal by the Contractor. It is the Contractor's responsibility to fully clean the tank, regardless of the methods employed.
- The entire tank interior shall be powerwashed following residual contents removals.
- To the best of the City's knowledge, it is not anticipated that any hazardous sludge will be delivered to the Contractor. Hazardous sludge shall mean sludge which qualifies as hazardous waste under applicable federal and state laws, rules, or regulations such as

the Resource Conservation and Recovery Act, the Toxic Substances Control Act, and the Comprehensive Environmental Response, Compensation and Liability Act.

- If the Contractor shall ever receive hazardous sludge from the Plant, responsibility and ownership thereof shall remain with the Plant. If the Plant has reason to believe that it may have delivered any hazardous sludge to the Contractor, the Plant shall promptly notify the Contractor. The Plant shall indemnify and hold harmless the Contractor from any and all costs, loses, or damages incurred by the Contractor as a result of receiving hazardous sludge.
- In the event a load of residuals becomes contaminated during transit from the Wastewater Treatment Plant to the ultimate disposal site and such residuals become hazardous, the Contractor shall bear full responsibility for arranging and for all costs of the removal and alternative lawful disposal of that load of residuals. Such disposal shall be carried out within 24 hours after the results of the tests which determined that the load was hazardous are known.

3.3 TRANSPORTATION AND DISPOSAL

- The Contractor shall furnish all transportation vehicles and equipment necessary for the transportation of the residuals to the disposal site. The Contractor shall pay for all transportation costs including, but not limited to, maintenance, taxes, fees, tolls, fuel, etc. A sufficient number of containers and container handling equipment shall be procured by the Contractor in order that the residuals can be managed in accordance with the terms and conditions of the Contract. The Contractor shall also have access to back-up vehicles and equipment to insure that there is no downtime in connection with operations.
- Each disposal container shall be ISO type, or approved equal, constructed of sufficient gauge metal, have watertight bodies, and sealed tailgates equipped with positive locking devices. The Contractor shall control the odor that may emanate from the containers during loading and/or transportation by adding an odor counteractant (as described in Section 3.6, Odor Control, of this Specification). The Contractor shall furnish and install a metal or tarpaulin cover on each container immediately after the container is full and the odor counteractant has been added. The cover shall be secured in an approved manner and shall remain in place until the container has reached the disposal site. All trucks and containers will be washed clean of any spills before leaving the Plant and will be maintained in clean, sanitary condition by the Contractor at all times. The Contractor shall furnish and utilize his own wash down equipment for his cleaning operation.
- Each load of residuals shall be sampled and tested by a DEP-certified laboratory in accordance with EPA Part 503 sludge reporting laboratory analysis requirements. The Contractor shall coordinate, administer and pay for the laboratory sampling. A copy of all laboratory certificates of analysis shall be provided to the Owner and Engineer.

- The Contractor shall provide and maintain a truck manifest and security system. Each load of residuals shall be sealed by the Contractor prior to leaving the Wastewater Treatment Plant. Each seal shall be numbered and the seal number shall be documented on the manifest. A sample manifest and seal shall be submitted to the Owner for approval prior to the start of the work. Seals must be of such design that they cannot be unlocked, removed, reinstalled, relocked or easily cut or broken. With each payment request, the Contractor shall submit a copy of the completed manifest for each container to document that the seals were not broken. In addition, the Contractor shall submit a copy of the disposal site weight ticket showing the gross, tare, and net weight of each load of residuals.
- Each disposal site weight ticket shall include the truck license plate number, trailer license plate number, container number, time, date, ticket number (to be documented on the manifest) associated manifest number, Contractor's name and transporters name. The Contractor shall submit to the Owner a list of tractors, trailers, and containers to be utilized under this Contract and their associated tare weights.

3.4 DISPOSAL SITE PERMIT(S)

- The Contractor's disposal site shall be located within the boundaries of the United States of America. The disposal site shall be operated in accordance with all applicable Federal, State, and Local laws. The disposal site must be under USEPA and State Jurisdiction. All costs associated with obtaining and maintaining use of the disposal site and obtaining necessary permits from the Local, State, and Federal Jurisdictions during the life of the Contract shall be borne by the Contractor.
- The following information shall be submitted by the Contractor within forty-five (45) consecutive calendar days after the bid opening:
 1. Name, address, and location of disposal site. Owner's name, address, telephone, fax number, and the contact person at the disposal site.
 2. Total daily capacity of the disposal site. Total daily capacity of disposal site permitted to specifically accept the Owner's grit, screenings, sludge, and floatables under this solicitation.
 3. The EPA region, State Regulatory Agency, and the Local Regulatory Agency (if applicable) for which permits are required.
 4. Copies of valid, existing operating permits from the disposal site from the applicable regulatory agencies.
 5. Copies of valid, existing permits from all applicable regulatory agencies to specifically accept the Owner's grit, screenings, sludge, and floatables at the disposal site. Permits shall state the maximum capacity of the disposal site to accept the Owner's grit, screenings, sludge, and floatables or else the bidder shall provide a letter form the applicable regulatory agency verifying this maximum capacity.
 6. A notarized letter form the disposal site owner granting permission to bring the Owner's grit, screenings, sludge, and floatables to the disposal site in the proposed capacity.

3.5 TRANSPORTATION PERMITS

- The Contractor shall conduct the transportation of the residuals in accordance with all applicable Federal, State, and Local laws and regulations. The Contractor shall furnish and maintain all licenses and permits during the life of the Contract that apply to transportation and hauling. All transport vehicles shall be operated within the weight limits established in the States and localities through which the transport vehicles must travel.
- The Contractor shall submit, within forty-five (45) consecutive calendar days after the bid opening, copies of existing transportation permits.

3.6 ODOR CONTROL

- The Contractor shall be responsible for all aspects of odor control for his entire operation including, but not limited to, slurring, pumping, dewatering, transportation, and disposal. As such, the Contractor shall take whatever steps are necessary to eliminate all odors which his operation may cause.
- The Contractor shall furnish and evenly spray onto each filled container the following odor counteractant: Air care liquid odor counteractant, Liberty Enterprises or approved equal. Approval of an or equal shall be based on an odor counteractant's ability to effectively deodorize an equivalent quantity of residuals. Under this solicitation, only liquid odor counteractants will be considered. Dry and gaseous counteractants, and liquid drain cleaners, are not acceptable. The dilution and dosage rate of an odor counteract submitted as an equal shall be as recommended by the manufacturer and approved by the Engineer. Remaining counteractant, not used by the Contractor, shall become the property of the Owner at the completion of the project. The Contractor shall supply the necessary equipment to apply the odor counteract including, but not limited to, the water required for dilution. No additional payment will be made for the odor control operation.
- The Contractor shall cover equipment and/or containers as necessary to control odors. Should odor problems persist, even though the Contractor has made every effort to correct it, the Owner reserves the right to stop the Contractor's operations.

3.7 GAS MONITORING IN HAZARDOUS LOCATIONS

- Hazardous Location
 1. The Contractor's attention is directed to the fact that the existing digesters may contain gases which are potentially hazardous and which may be toxic, contain insufficient oxygen for human survival, and are combustible in the presence of oxygen.
 2. The work area under this Contract is designated as a hazardous location.
 3. All electrical equipment furnished, installed, and/or utilized under this Contract in the locations shall be of explosion-proof construction complying with all

requirements for Class I, Division 1, Group D, Hazardous Locations as defined by the National Electric Code, the National Fire Protection Association, and with all other safety codes pertaining thereto. All mechanical equipment shall be non-sparking.

4. Burning, use of open flames, smoking, or the carrying of matches or lighters shall be prohibited within hazardous areas.
5. When working within the hazardous areas, the Contractor shall take suitable precautions to insure safe working conditions. Before entering any hazardous areas, the Contractor shall insure all hazardous gases have been evacuated and that a safe working atmosphere exists.
6. The Contractor shall take all necessary protective measures to insure the safe completion of the work.
7. All work performed in connection with combustible equipment and piping demolitions shall meet the applicable requirements of the following:
 - a. API Accident Prevention Manual No. 1A, Cleaning Petroleum Storage Tanks.
 - b. Section A. Crude-Oil and Unfinished-Products Tanks.
 - c. API Accident Prevention Manual No. 3, Gas and Electric Cutting and Welding.
 - d. API RP 2015, Recommended Practice for Cleaning Petroleum Storage Tanks.
 - e. Water Pollution Control Federation Manual of Practice No. 1, Safety in Wastewater Works.
 - f. NFPA No. 327, Standard Procedures for Cleaning and Safeguarding Small Tanks and Containers.
 - g. American Welding Society A 60-65, Safe Practices for Welding and Cutting Containers that Have Held Combustibles.
 - h. The Occupational Safety and Health Act of 1970, OSHA.
8. When working in hazardous locations, the Contractor shall use spark-proof tools, explosion-proof temporary lighting, and shall not use electric power tools, open flame devices, electric welding, or any device or methods which might conceivably cause ignition or an explosion. If the Contractor anticipates that the use of spark producing equipment and methods may be necessary, such use will be granted only under the following conditions:
 - a. Before the Contractor uses such spark producing equipment or methods, he shall give the Owner reasonable advance notice, stating the location and nature of the work proposed, the type of spark producing equipment or methods to be used, and the hours during which his work will take place. The Contractor will then arrange to have a check made to determine if the location where said equipment or methods are to be used is gas free. If the location proves to be unsafe, the Contractor shall furnish, install, and operate and later remove such facilities as are necessary to provide a safe area.

- b. The Contractor will then recheck the area and, if safe, may begin work. The Contractor will arrange for a continuous check of the area during the working period.
 - c. All checks and monitoring of the atmosphere shall be performed by the Contractor.
 9. The Contractor shall also instruct and caution his employees and employees of his subcontractors that smoking is strictly prohibited while in hazardous areas. Suitable prominent “No Smoking” signs shall be placed at locations indicated by the Owner. A single remote location may be established by the Owner where smoking is allowed.
- Hazardous Area Monitoring
 1. General
 - a. When the Contractor is working in hazardous areas, he shall arrange for his own gas detection as specified below.
 - b. Thirty (30) days prior to starting any work in hazardous areas, the Contractor shall provide a detailed schedule of the work to be performed in hazardous areas including estimated dates and durations. The Contractor shall update his schedule weekly until the work is complete.
 - c. The Contractor shall notify the Owner and Engineer in writing 48 hours in advance of performing work in hazardous areas.
 - d. The Contractor shall not proceed with any work in hazardous areas without the gas detection at the site at least one (1) hour before the start of the work.
 2. Contractor’s Gas Detection
 - a. The Contractor shall arrange and have available gas detection to determine that a safe and gas free atmosphere exists in all hazardous areas in which work is to be performed and to constantly monitor and certify as to the safety of the areas while work is being performed in the area.
 - b. Gas Detection shall be available one (1) hour before the Contractor starts work.
 - c. The Contractor’s Gas Detection shall provide for the following:
 - 1) Gas detection survey to determine the concentration of: (a) oxygen (in percent); (b) hydrogen sulfide (in parts per million); and (c) combustible gases, particularly methane (in percent), at all areas.
 - 2) Provide written verification of safe conditions in all operating areas every work day upon completion of instrument calibration and before the Contractor starts to work.
 - 3) Continuous monitoring of the areas with logging of readings in the area every hour, emphasizing those locations where a hazardous condition is more likely to occur, and determination of whether a given area is safe to work.

- 4) Determination of the conditions required to render a given area safe to work.
- 5) If, at any time during the day, gas detection detects the presence of methane at a concentration of 10% L.E.L. (Lower Explosive Limit) and/or hydrogen sulfide at a concentration of 10 parts per million, a WARNING condition shall be declared and the Contractor, the Owner, and the Engineer shall be immediately apprised of the condition by radio, plant telephone system, or in person.
- 6) If, at any time during the day, gas detection detects the presence of methane, or any other combustible gas identified as a site hazard in this Contract, at a concentration equal to or greater than 20% of the L.E.L. and/or identifies an oxygen concentration of 19.5% or less and/or detects hydrogen sulfide at 20 p.p.m. or greater, a HAZARDOUS condition shall be declared and the Contractor shall take the following actions: (1) sound a portable air horn to warn all personnel that an unsafe condition exists; (2) notify the Owner and the Engineer by radio communication, plant telephone system, or in person that a Hazardous Condition has been declared; (3) all personnel not equipped with air supplying apparatus in accordance with OSHA requirements shall be immediately evacuated from oxygen deficient areas or areas found to have hydrogen sulfide at Hazardous levels as defined above and monitoring for oxygen and hydrogen sulfide levels shall continue while any personnel remain in the area.
- 7) When the gas detection determines that a Hazardous condition no longer exists, notice shall be made by radio, plant telephone system, or in person to the Owner and the Engineer.
- 8) Provide all required gas detection equipment in sufficient quantities (with back-ups), including, but not limited to, gas meter, test instruments, sampling lines, safety lines, harnesses, self-contained breathing apparatus (Scott Air Pak, or approved equal), protective clothing, explosion-proof lighting, radios, air horns, and any other necessary items.

3.8 SPILL PREVENTION FOR TEMPORARY DEWATERING OPERATION

- The Contractor shall furnish and install a leak proof berm system underneath the entire dewatering system so as to prevent all runoff and/or spills from the dewatering system operation from escaping into the surrounding area. As directed by the Engineer, the Contractor shall also install a berm system underneath other associated equipment (e.g. oil reservoir tanks, polymer tanks, etc.) as may be necessary to prevent runoff and/or spills. The minimum height of the retaining walls for the berm system shall be twelve (12) inches. The berm shall be designed such that all runoff and/or spills shall flow towards a single location (within the berm area) where it will be pumped back into the incoming slurry line.
- The configuration of the berm system shall be approved by the Engineer. The material of the berm shall be durable and shall be able to withstand the application without ripping, tearing, etc. In addition, in order to prevent damage to existing structures from leaks, spills, etc., the Contractor shall furnish and install, as necessary, approved covers, aprons, etc.”

3.9 FINAL INSPECTION

- Each completed digester will be inspected by the Engineer prior to payment to determine if the digester has been adequately cleaned. The digesters shall be considered cleaned when no visible residual material is present.

3.10 CLEAN-UP

- Upon completion of the work at each location, the Contractor shall remove all rubbish and excess materials resulting from his work and shall leave the work location in a condition satisfactory to the Engineer.

3.11 PORTABLE ODOR CONTROL SYSTEM

- The Contractor shall furnish and install a complete portable, self-contained odor control system for the digester tank the Contractor is performing work on. The Contractor shall take all measures possible to ensure vented gases are exhausted through the odor control system.
- The odor control system shall be operated continuously (24 hrs/day, 7 days/week) during the Contractor’s operation. Failure of the odor control system shall result in immediate stoppage of the Work.
- In the equipment submittal, the contractor shall provide a list of stand-by equipment and spare parts in event of equipment failure.
- Prior to the commencement of digester cleaning operations, the Contractor shall perform a performance test of the odor control equipment to the satisfaction of the Owner and Engineer.

- Prior to the commencement of digester cleaning operations, the Contractor shall have on-site all stand-by equipment and spare parts.
- Once the digester is made available to the Contractor, the Contractor shall furnish all the necessary labor, materials, and equipment to unbolt and remove not more than two (2) existing roof manhole covers. The Contractor shall immediately furnish and install the odor control system onto one (1) manhole and an adequate ventilation system onto the second manhole. The ventilation system shall be properly sized to provide the required amount of atmospheric air into the digester. The Contractor shall fabricate the necessary transition fittings between the manholes and the odor control system ductwork and the ventilation system. The installation and location of the complete odor control system, including the size and length of the ductwork, transition fittings, duct supports, etc., shall be in accordance with the manufacturer's recommendations.
- After complete removal of hazardous gas has been confirmed by the Contractor's gas detection, the Contractor shall proceed with the cleaning operations. The odor control and ventilation system shall remain in place and operated continuously during the work. The Contractor shall remove the minimum number of additional roof and side manhole covers as required to perform the work. The Contractor shall provide suitable working platforms, illumination, and additional ventilation as required for the performance of the work.
- The Contractor may submit to the Engineer an alternate method of odor control for approval. Evaluation of the alternate method will be based on ability to effectively capture and/or deodorize vented gases.

1. Odor Control System

- a. Each odor control system shall include a self-contained, skid mounted package consisting of a carbon adsorption vessel, fan, and accessories as specified herein. The Contractor shall furnish all the necessary labor, materials, and equipment to transport, unload, and handle the delivered equipment safely. The portable unit shall be High Flow VentSorb as manufactured by Calgon Carbon Corporation, or approved equal. The unit shall be modular and corrosion resistant and fabricated to contain 1,125 pounds of carbon for treatment of 800 cfm airflow. Electrical controls and connections shall be mounted on the modular unit and shall be explosion-proof. The skid-mounted unit shall be mounted on a mobile platform (dolly). The unit shall remove hydrogen sulfide, methyl mercaptan, and other organic odors.

2. Starter

- a. A completely-wired combination starter shall be mounted on the skid-mounted unit. The starter shall be NEMA 7 aluminum enclosure with the following: Size 1 starter, circuit breaker, start and stop buttons, pilot "run" light and heater elements. Starter shall be explosion-proof construction.

3. Damper
 - a. A fan discharge damper shall be furnished to regulate airflow through the odor control unit. Damper blade and frame shall be PVC construction, shaft shall be Type 316 stainless steel construction. Damper shaft shall have a shaft seal. Hand quadrant shall be furnished for manual control. Damper shall have positive tight shut-off capabilities of zero (0) leakage.
4. Flex Connector
 - a. System shall be furnished with a transition piece between the fan outlet and vessel inlet nozzle. A minimum 1/8" thick, neoprene flex-boot complete with 316 stainless steel band clamps shall be furnished.
5. Skid
 - a. The structural steel skid shall be of one-piece construction capable of supporting the full weight of fan assembly and vessel when fully loaded when lifted at identified pickup points without visually noticeable deflection. The skid shall be entirely coated with a black epoxy mastic paint system, or approved equal, coating system.
6. Dolly
 - a. The Contractor shall furnish a mobile platform sized to fit the skid and weight of the odor control unit, so that the whole unit is truly portable and can be turned around in tight situations.
7. Fan
 - a. Unit shall be furnished with a centrifugal industrial FRP fan that is AMCA Certified and licensed to bear AMCA seal. Fan shall be V-belt driven, arrangement #10, equipped with undrilled inlet flange, inlet screen, outlet flange, Viton shaft seal, and OSHA approved safety belt guard. Entire fan shall have black enamel finish. Fan motor is to be 7.5 Hp, explosion proof, Class 1, Division 1, 3500 RPM, 3 phase, 60 Hertz, 460 Volt motor. Fan shall include graphite impregnation.
8. Seals
 - a. The odor control unit shall be furnished with the vessel outlet and fan inlet covered with durable, airtight seals which are reusable for protecting the activated carbon when the odor control unit is not in operation or in storage.
9. Odor Control Vessel
 - a. Vessel and lid assembly shall be a reusable, prefabricated polypropylene 48-inch diameter unit. Assembly shall be suitably constructed to withstand

air temperatures to 150 degrees F, internal pressures to 15" W.C. and internal vacuum to 10" W.C. without noticeably deflection of the sidewalls or ends.

- b. Unit shall contain a minimum of 1,125 pounds of Calgon Carbon Corporation CENTAUR HSV type carbon, or approved equal.
- c. Unit shall have 10" inlet and 10" outlet nozzles and shall be capable of treating a maximum airflow of 1,000 cfm.
- d. Unit shall have a removable lid for easy carbon replacement. Lid shall be secured with stainless steel snap locks integral to the vessel assembly.
- e. Unit shall provide continuous treatment when fan is in service.
- f. Unit shall be provided with a ¾" FNPT drain nozzle and plug located in the inlet plenum near the base of the unit.
 - 1) Vessel shall be furnished with a 1" diameter bulkhead fitting complete with plug near the top for Hydrogen Sulfide monitoring.
- g. Vessel shall have grounding rod to adequately ground carbon bed from build-up of static electricity.
- h. Activated carbon support grating shall be FRP.
- i. Maximum allowable height of the vessel, including the flanged outlet nozzle, skid, and dolly shall be 8'-0" above the floor.
- j. Vessel discharge shall be fitted with a "T" shaped weather cap. Cap shall be complete with a stainless steel birdscreen.
- k. Unit shall be provided with one (1) Hydrogen Sulfide bed monitor sensitive to concentrations from 0.5 to 20.0 ppm.

10. Flexible Duct

- a. The flexible ducts shall be constructed of PVC compound film wall, supported by a narrow pitch spring steel wire helix fully enclosed within the PVC material, capable of withstanding a negative pressure of 1 inch Hg and a positive pressure of 3 inches Hg and certified flame retardant to UL 94-VO. Flexible ducts shall be Flexaust Type R-2 by the Flexaust Company, Division of Callahan Mining Corporation, or approved equal. The Contractor shall furnish the required stainless steel fittings, stainless steel hardware, and neoprene gaskets to make airtight flexible duct connections to the odor control unit and to the digester tank. The Contractor shall drill holes in the Odor Control Unit inlet to match those on the flexible duct fittings.

11. Activated Carbon

- a. The activated carbon shall be virgin granular activated carbon, derived from bituminous coal as manufactured by Calgon Carbon Corporation or approved equal, suitable for control of sewage treatment odors. No chemical impregnation of the activated carbon is permitted. A minimum

1,125 pounds of the virgin granular activated carbon is required and shall be provided with the unit.

b. The activated carbon shall have the following specifications:

1) Iodine No., mg/g (min.)	1000
2) Butane Activity, weight % (min.)	15.6
3) Ash, weight % (max.)	7
4) Moisture, weight % as packed (max.)	5
5) Hardness Number (min.)	95
6) Apparent Density, g/cc (min.)	0.48
7) Mean Particle Diameter, mm (min.)	3.6
8) H ₂ S Breakthrough Capacity, g H ₂ S removed/cc Carbon (min.)	0.03

a) The determination of H₂S breakthrough capacity will be made by passing a moist (85% R.H.) air stream containing 1% H₂S at a rate of 1,450 cc/min. through a 19 millimeter diameter by 9-inch deep bed of uniformly packed activated carbon and monitored to 50 ppm breakthrough. Results are expressed in grams H₂S removed per cc of carbon.

c. The carbon supplied shall be of a type that does not require chemicals to be regenerated in-place. Carbons which require hydroxide, permanganate, chlorine, organic, or other solutions, except clean water, to regenerate the material, will not be accepted.

12. Testing

- a. The Contractor shall provide certification from the carbon manufacturer verifying the parameters specified for the carbon, prior to its use. The replacement carbon shall be as specified herein and certification from the carbon manufacturer verifying the parameters specified shall be provided prior to its use.
- b. The Contractor shall furnish and replace the carbon in accordance with the manufacturer's recommendations.
- c. The Contractor shall dispose of the spent carbon at a permitted disposal facility (and shall document such permitted disposal).
- d. The Contractor shall at all times have at the work site the required amount of new carbon for one (1) complete carbon change.

3.12 METHOD OF MEASUREMENT

- The quantity of residuals to be removed by the Contractor from each digester for which payment will be made will be the actual quantity of residuals removed as measured as noted in Part 3.1 in this Specification Section, measured in cubic yard removed at the price per cubic yard bid in the Proposal from the respective item, and shall include the cost for removal, transportation, and disposal of residuals, portable odor control system,

odor counteractant, permits, gas monitoring, pumps, piping, valves, belt-filter press(es), cleaning-up all materials, labor, equipment and all else necessary therefore and all other work in connection therewith and incidental thereto.

3.13 BASIS OF PAYMENT

- Payment will be made under:

<u>Pay Item</u>	<u>Description</u>	<u>Pay Unit</u>
3	Residual Tank Contents Removal, Dewatering, Disposal and Cleaning For Anaerobic Digester No. 4	Cubic Yard
4	Residual Tank Contents Removal, Dewatering, Disposal and Cleaning For Anaerobic Digester No. 5	Cubic Yard

END OF SECTION 132000

SECTION 150900

SUPPORTS, ANCHORS, AND SEALS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Pipe hangers, supports and associated anchors.
- B. Sleeves and seals for foundation, wall, and floor penetrations.

1.02 RELATED SECTIONS

- A. Piping Materials: Section 153700.

1.03 QUALITY ASSURANCE

A. Design Criteria:

- 1. Pipe Support Systems: Provide adequate pipe support systems designed in accordance with recognized engineering practices using, where possible, standard, commercially accepted pipe hangers and accessories.
 - a. Pipe hangers and supports shall conform to the latest requirements of American National Standards Institute Standard ANSI B31.1 . Code for Pressure Piping, Manufacturers Standardization Society Standard Practice MSS SP-58 Pipe Hangers and Supports -Materials, Design and Manufacturer and MSS SP-69 Pipe Hangers and Supports -Selection and Application.
- 2. Equipment Support Systems: Provide adequate equipment suspension and/or supports designed in accordance with recognized engineering practices using, where possible, standard commercially accepted products and systems.
 - a. Design and size equipment suspension and/or supports based on installation instruction or information as obtained from equipment manufacturer.

B. Anchor and Fastener Design Requirements:

- 1. Sizing: Provide anchors and fasteners for Product installations of such diameters and lengths as recommended by the particular Product manufacturer involved.
 - a. When sizing recommendations are not obtainable, size fasteners in the largest diameter that will pass through bolt holes as provided in the Products for anchoring and fastening purposes.
- 2. Safety Factor: Determine the lengths of anchors and fasteners based on substrate materials at points of anchor installation and to provide a safety factor of four to one.

- C. Materials Compatibility: Where pipe supports contact bare piping or in-line devices, provide supports of compatible material or dissimilar material isolation so that neither will have a deteriorating action on the other. Where pipe supports will be installed on the outside of insulated piping or in-line devices, provide approved pipe shield between insulation and support.

1.04 REFERENCES

- A. American National Standards Institute (ANSI): ANSI B31.1, Code for Pressure Piping.
- B. American Society For Testing and Materials (ASTM):
 - 1. ASTM A36; Structural Steel, Spec. for.
 - 2. ASTM A47; Ferritic Malleable Iron Castings, Spec. for.
 - 3. ASTM A48; Gray Iron Castings, Spec. for.
 - 4. ASTM A120; Pipe, Steel, Black and Hot-Dipped Zinc-Coated (Galvanized) Welded and Seamless, for Ordinary Uses, Spec. for.
 - 5. ASTM A167; Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet and Strip, Spec. for.
 - 6. ASTM A181; Forgings, Carbon Steel, for General-Purpose Piping, Spec. for.
 - 7. ASTM A320; Alloy Steel Bolting Materials for Low-Temperature Service, Spec. for.
 - 8. ASTM A563; Carbon and Alloy Steel Nuts, Spec. for.
 - 9. ASTM A576; Steel Bars, Carbon, Hot-Wrought, Special Quality, Spec. for.
- C. American Welding Society (AWS): AWS D1.1 Structural Welding Code.
- D. Cast Iron Soil Pipe Institute, Cast Iron Soil Pipe and Fittings Handbook, CISPI Specifications HS-67 and 301.
- E. Federal Specifications (Fed. Spec.):
 - 1. Fed. Spec. FF-S-325, Shield, Expansion; Nail, Expansion and Nail Drive Screw (Devices, Anchoring, Masonry) Group II (Shield, Expansion Bolt Anchor) Type 4 (Wedge Expansion Anchors) Class 1 (One-Piece Steel Expander with Cone Taper Integral with Stud).
- F. Manufacturer's Standardization Society (MSS) of the Valve and Fittings Industry:
 - 1. MSS SP-58, Pipe Hangers and Supports -Materials, Design and Manufacturer.
 - 2. MSS SP-69, Pipe Hangers and Supports -Selection and Application.
- G. Sheet Metal and Air-Conditioning Contractors' National Association, Inc. (SMACNA):
 - 1. SMACNA HVAC Duct Construction Standards, Metal And Flexible.

1.05 SUBMITTALS

- A. Shop Drawings and Product Data: As specified in Sections 01300 and 15010.
Submittals required for the following items:

1. Pipe Supports.
2. Sleeve and Seal Materials.

PART 2 - PRODUCTS

2.01 PIPE SUPPORTS

- A. Base Supports: Where base supports are indicated for valves and pipe fittings provide saddles supported by pipe columns.
 1. Saddles: Consisting of devices similar to ITT Grinnell Figure 258 Cast Iron Pipe Saddle Support; and pipe column designed to adequately support the applied loads with a steel base anchored to floor.
 2. Pipe Column: Pipe nipple of Schedule 80 galvanized steel pipe ASTM A120.
- B. Riser Clamps: Support vertical runs of piping at each floor, or closer where required, with carbon steel clamps ASTM A36 bolted around pipes and attached to the building construction.
 1. Provide copper plated clamps for copper tubing support.
 2. Provide two (2) bolt type clamps designed for installation under insulation on insulated pipe runs.
- C. Hangers: Fabricated of malleable iron ASTM A47, or carbon steel ASTM A36.
 1. Provide coated or plated hangers to isolate steel hangers from dissimilar metal tube or pipe.
 2. Hangers for pipe sizes 2 1/2 inches or larger shall incorporate a means of vertical adjustment after erection while supporting the load.
 3. Hanger Rods: Carbon steel conforming to ASTM A576.
 - a) Diameter of rods for piping system support shall conform to ANSI B31.1.
 - 1) In no case shall hanger rods less than 3/8-inch diameter be provided for support of pipe sizes two inches and smaller, or less than 1/2-inch diameter rod for supporting pipe sizes 2 1/2-inch and larger.
 4. Adjustable Band Hangers: Carbon steel band type hangers designed for suspension on hanger rods with provisions for vertical adjustments and locking in position using supporting and locknuts. Provide band hangers to support non-insulated pipe.
 5. Clevis Hangers for Insulated Pipe: Carbon steel yoke and U-strap type hanger designed for installation under insulation with cross bolt outside the insulation.
 6. UL and NFPA Approved Hangers: Clevis type, adjustable swivel type, and/or adjustable flat-iron type. Where adjustable flat iron hangers cannot be used, hangers may be universal channel type or C-type with retaining strap.
- D. Brackets: Where piping is run adjacent to walls, provide welded steel brackets ASTM A36 and pre-punched with a minimum of two (2) fastener holes.
- E. Racks: Multiple pipe racks or trapeze hangers fabricated from steel ASTM A36, and

designed to suit conditions at points of installation.

1. Keep pipes in their relative positions to each other by the use of clamps or clips. Lines subject to thermal expansion must be free to slide or roll.

F. Process Piping Base Supports:

1. Concrete Base Supports: For piping in interior of structure, or when furnished in lieu of cast iron saddle supports:
 - a. Do not use concrete base supports where distance from floor to bottom of unsupported element exceeds five (5) feet.
 - b. Materials and construction as specified in Division 3 -Concrete.

G. Corrosive Applications: For applications subject to severe corrosion, Type 304 Stainless Steel will be required for all pipe supports and hardware.

2.02 SLEEVES AND SEALS

A. Pipe Sleeve Sizing:

1. Uninsulated Pipes: Size sleeves two (2) pipe sizes larger than pipe passing through, or size sleeves for a minimum of 1/2-inch clearance between inside of sleeve and outside diameter of pipe passing through.
2. Insulated Pipes: Size sleeves for a minimum of 1/2-inch clearance between inside of sleeve and outside diameter of insulation covering on pipes passing through.
3. Sleeve Length:
 - a. Wall and Partitions: Equal to total thickness of wall or partitions and terminated flush with finished surfaces.
 - b. Floors: Equal to total depth of floor construction including finish and extending a minimum of one-inch above floor level.

B. Sleeve Materials:

1. Pipe Sleeves In Cast-In-Place Concrete:
 - a. Fabricate from Schedule 10 black steel pipe and weld a 2-inch wide intermediate anchoring flange of 3/16-inch steel midway on pipe sleeve; or provide sleeve product similar to Fig. 204 as manufactured by F & S Manufacturing Corporation, or equal.
 - b. High impact thermoplastic sleeves formed with anchor and waterstop collar, and provided with nailer end caps to position sleeve exactly in form. Provide sleeve similar or equal to Century-Line Sleeve as manufactured by Thunderline Corporation.

C. Foundation Sleeves: Gray or ductile cast iron with intermediate wall collar anchor and cutting grooves on the plain end.

1. Sleeve designed for mechanical joint gasket and gland and furnished with such. Sleeve designed to pass pipes through interior dimension of sleeve.
2. Provide sleeves similar to those manufactured by Clow Corporation, MJ Wall Sleeve F-1429, or equal.

D. Seals and Plates:

1. Wall Seal: Hydrostatic seal designed to seal opening between pipes and a through structure opening. Provide Link-Seal by Thunderline Corp., or equal, with stainless steel nuts and bolts. Caulking, mastic sealants, lead/oakum not permitted.
2. Wall and Ceiling Plates: Cast metal with integral set screw or similar anchoring screw. Hinged or split design plates may be provided.
3. Escutcheons: Provide chrome plated stamped steel hinged plates to close pipe penetrations through structure interior in finished areas. Provide plates designed to lock on pipes using set screws.

PART 3 - EXECUTION

3.01 PIPING SYSTEM SUPPORT INSTALLATION

A. General: The Drawings are generally indicative of the work, with symbols and notations for clarity. However, the Drawings are not an exact representation of all the conditions present and they may not indicate every pipe support and anchor required to attach or support piping. The Contractor's dimensioned pipe layout drawings, required as work of Section 15370 shall include the supports and anchors required to properly attach or support piping in accordance with ANSI B31.1, MSS SP58 and SP69.

B. Performance:

1. Install pipe supports and anchors to hold piping straight and true to line both vertically and horizontally.
2. Where thermal movement in piping systems will occur, provide piping system supports capable of supporting the line in all operating conditions.
3. The supporting force at each hanger shall prevent excessive stress in the pipe and connected equipment.
4. Install pipe supports anchored directly to or suspended directly from structural supports. Where pipe hangers fall between structural members provide auxiliary steel supports to carry pipe hangers.
5. Do not support piping from metal decks.
6. When supporting piping or in-line equipment from pre-engineered structural supports or equipment, Contractor shall verify adequacy of support or equipment surface to carry additional loads with the pre-engineered system or equipment manufacturer.
7. All changes in direction shall be made with fittings as required by 1995 International Plumbing Code.

C. Spacing of Hangers and Supports:

1. General:
 - a. Space hangers and supports as stated herein and in ANSI B31.1, MSS SP 58 and SP 69, and as indicated on the Drawings.
 - b. Give special consideration to spacing of hangers and supports where components such as fittings and valves impose concentrated loads.
2. Ductile Iron Pipe:
 - a. Hanger spacing shall not exceed 12 feet on center.

b. Support each change of direction or branch connection.

D. Pipe Sleeve Installation:

1. Set pipe sleeves in concrete formwork, walls, partitions, floors and ceilings as construction work progresses. Provide sleeve for each pipe individually.
2. Provide and set sleeves to avoid delaying construction activities of other trades. Perform any additional cutting and boring required due to improperly located or omitted openings without cost to the Owner and perform such additional work under the observation of the Engineer.

E. Seals and Plates Installation:

1. Following pipe installation through sleeves in exterior walls below grade, install Wall Seal to render installation leak free. Wall Seal not required in interior walls, partitions, floor and ceilings.
2. Install wall seal as close to outside surface of wall as possible to provide a watertight seal below grade. Apply a coating of coal tar paint or other type approved coating on bolt heads and other metal parts on below grade wall seals prior to backfilling.
3. Install wall and ceiling plates to close pipe sleeve openings.
4. Install escutcheons to close pipe sleeve openings in finished areas.

3.02 ANCHOR AND FASTENER INSTALLATIONS

A. Auxiliary Steel Fabrication: Insofar as possible, fit and shop assemble steel fabrications and make ready for field installation.

1. Drill or punch holes as required for attachment of work and for bolted connections. Burned holes are not acceptable.
2. Perform welding of assemblies in accordance with A WS D 1.1. Dress welds smooth and free of sharp edges and corners.
3. Perform shop painting of auxiliary steel as specified in Section 15010.

B. Threaded Bolts: Draw threaded bolted connections up tight using lock washers to prevent bolt or nut loosening.

C. Drilled-In Expansion Anchor and Fastener Installation:

1. General: In general, install expansion anchors in strict accordance with manufacturer's instructions and in accordance with the following.
2. Drilling Holes: Use rotary hammer type drill and make drill holes to the required diameter and depth as consistent with anchor manufacturer's instructions for size of anchors being installed.
3. Minimum Embedment: Embed expansion anchors to four and one-half bolt diameters, unless otherwise indicated on Drawings.

END OF SECTION 150900

SECTION 153700

PROCESS PIPING

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Pipe
- B. Pipe Specialties

1.02 RELATED SECTIONS

- A. Supports, Anchors, and Seals: Section 150900.

1.03 QUALITY ASSURANCE

- A. Source Quality Control:
 - 1. Shop Tests and Inspections: All materials furnished by the Contractor shall be certified by the supplier for compliance with the pertinent specifications. Shop inspections and testing may be required. The cost of shop testing shall be borne by the supplier or the Contractor.
- B. Field Inspection: All pipe and appurtenances shall be furnished, installed, and tested for defects in material and/or workmanship in the manner specified and in the presence of and as approved by the Engineer.
- C. Disposition of Defective Material: All material found during the progress of the Work, either before or after installation, to have cracks, flaws, or other defects will be rejected by the Engineer. He shall promptly remove all defective materials furnished by the Contractor from the site at his own expense.

1.04 REFERENCES

- A. American National Standards Institute (ANSI):
 - 1. ANSI B31.1, Power Piping (Pressure Piping).
- B. American Society for Testing and Materials (ASTM):
 - 1. ASTM A536, Ductile Iron Castings.
- C. American Water Works Association (AWWA):
 - 1. AWWA C110, Ductile-Iron and Gray-Iron Fittings, 3-inch through 48-inch for Water and Other Liquids.

3. AWWA C111, Rubber-Gasket Joints for Ductile-Iron and Gray-Iron Pressure Pipe and Fittings.
4. AWWA C115, Standard for Flanged Ductile-Iron Pipe with Threaded Flanges.
5. AWWA C150, Thickness Design of Ductile-Iron Pipe.
6. AWWA C151, Ductile-Iron Pipe, Centrifugally Cast, in Metal Molds or Sand-Lined Molds for Water and Other Liquids.
7. AWWA C153, Ductile-Iron Compact Fittings, 3-inch through 16-inch for Water and Other Liquids.

1.05 SUBMITTALS

- A. Shop Drawings and Product Data: Furnish completely dimensioned Shop Drawings, cuts or other data as required to provide a complete description of valves and piping specialties.
- B. Certificates: Certified records or reports of the results of shop tests, such records to contain a sworn statement that the shop tests have been made as specified.

PART 2 - PRODUCTS

2.01 PIPE AND PIPE FITTINGS

- A. Ductile Iron:
 1. Pipe: All pipe shall be in conformance to AWWA C151 and AWWA C150 and be provided with a factory applied ceramic epoxy internal lining.
 2. Wall Thickness: Special Class 52 for pipe with MJ or push-on joints; Special Class 53 for pipe with flanged joints.
 3. Ceramic Epoxy Lining: The material shall have a high resistance to chemical attack, and be designed specifically for protection of ductile iron pipe for sanitary sewer service. Coating shall be an amine cured novalac epoxy containing at least 20% by volume of ceramic quartz pigment. The thickness of the interior pipe lining shall be 40 mils nominal dry film thickness. Follow manufacturer's guidelines for sealing cut ends and repairs for epoxy lined DIP. Lining shall be Protecto 401, as manufactured by US Pipe, or approved equal.
 4. Joint Compound: Bell interior and spigot exterior up to 6 inches back from the end of the spigot end shall be coated with 6 mils nominal, 10 mils maximum joint compound. Follow manufacturer's specifications for joint compound application requirements. Joint compound shall be Protector Joint Compound, as manufactured by US Pipe or approved equal.
 5. Fittings:
 - a. Flanged and Mechanical Joint (MJ) Fittings: Gray iron or ductile iron AWWA C110 or ductile iron compact fittings AWWA C153.
 - 1) Up to 12-inch inclusive; 250 psi. rated.
 6. Joints:
 - a. Rubber-Gasket Joints:
 - 1) Use rubber-gasket joints for pipe and fittings installed underground.

- 2) Use Megalug field installed retainer glands at valves and fittings and at straight-run joints when required for thrust restraint.
- 3) Mechanical Joint: AWWA C111.
- 4) Push-on Joint: AWWA C111.
- b. Flanged:
 - 1) Unless indicated otherwise on the Drawings, use flanged joints for pipe and fittings installed inside of structures, AWWA C115.
 - a) Gaskets: 1/8 in. thick rubber full-face type.
 - b) Bolts: ANSI B18.2.1.
 - c) Nuts: ANSI B18.2.2.
- 7. Pipe and Fittings Coating:
 - a. Exposed Pipe: Factory coated outside with chemical resistant industrial coating suitable for severe corrosive applications.
- B. Pipe Supports, Anchors and Seals: Material as specified in Supports, Anchors and Seals: Section 150900.

2.02 PIPING SPECIALTIES

- A. Flanged Coupling Adapters with Mega-Lugs: For joining plain-end pipe to flanged fittings, valves and pumps. Meet requirements of AWWA C219.
 - 1. Acceptable Manufacturers:
 - a. Dresser Manufacturing Division of Dresser Industries, Inc.; Dresser Style 227 (for pipes up to 12"), or 128 (for pipes over 12").
 - b. Smith-Blair.
 - c. Or equal.
- B. Metal Harness: Metal harness of tie rods of adequate strength to prevent movement shall be used at sleeve couplings and flanged coupling adapters where indicated on the Drawings.
 - 1. Steel rods or clamps shall be Type 304 stainless steel.
 - 2. Steel plate of 3/4-inch ASTM A36 steel cut and punched as detailed on the Drawings.
- C. Dielectric (Insulated) Unions: Threaded type ANSI B2.1, 300 lb., WOG malleable iron ASTM A197, with vulcanized fiber insulating sleeve and neoprene gaskets; full size of pipe at point of installation.
- D. Ferrous Metal Unions: Threaded type ANSI B2.1 300 lbs. WOG malleable iron ASTM A197 with bronze-to-iron ground joint; full size of pipe at point of installation.
- E. Non-ferrous Metal Unions: Wrought copper or bronze with solder-joint, ANSI B16.22.

PART 3 - EXECUTION

3.01 PREPARATION

A. Field Measurement:

1. The Drawings are in general indicative of the Work, with symbols and notations for clarity. However, the Drawings are not an exact representation of all conditions involved, therefore, layout piping to suit actual field measurements. No extra compensation will be made for Work due to differences between indicated and actual dimensions.
2. Submit details of proposed departures necessitated by field conditions or other causes to the Engineer for approval.

3.02 INSTALLATION

A. General:

1. Clean piping prior to installation and following installation to prepare for painting. Keep open ends of piping and pipe attachment openings on equipment capped or plugged until actual connection.
2. Construct piping from full lengths of pipe using short sections only for runs of less than full pipe length. Make changes in direction of pipe runs with fittings only.
3. Cut pipe accurately to measurements established in the field and assemble in place without springing, forcing, excessive cutting or weakening of the structure.
4. Use reducing fittings where reduction in pipe sizes is necessary. Bushings will not be accepted.
5. Place and support piping runs as specified in Section 15090.

B. Exposed Piping:

1. Run piping parallel or perpendicular to the lines of the structure. Keep piping a sufficient distance from other work to permit clearance of not less than one inch between the piping or insulated piping and adjacent work. Install piping as close as possible to walls, overhead construction, columns, and similar to facilitate insulating work and removal of piping later.
2. Run piping to compensate for structural interferences, to preserve headroom, and not to interfere with openings, passageways and equipment.
3. Do not install piping with joints and fittings over motors, switchboards, panels, or similar electrical apparatus.
4. Install unions and flanges in accessible locations and where indicated or not, install union adjacent to all equipment and wherever removal of equipment for repair or replacement is required. Use dielectric unions at points of connection of copper tubing and piping to ferrous metal piping or equipment.

C. Pipe Joining:

1. General: Exercise care when making pipe joints and make joints in accordance with the pipe material manufacturer's recommendations and the following requirements. In each instance of pipe joining, those portions of pipes involved must be absolutely clean just prior to assembly. If a joint is extremely difficult to assemble or sealing is not affected, disassemble

- the joint and correct the difficulty if possible. Remake the joint using new materials when necessary.
2. Push-on Joints: To make ductile iron pipe push-on joints, properly seat sealing gasket, evenly and sufficiently lubricate the spigot end of pipe, and fully enter joint until joint line is visible. Make deflection, if required, only after the joint has been assembled properly.
 3. Mechanical Joints: To make ductile iron pipe mechanical joint, position sealing gasket and gland for bolting and then enter the spigot into pipe bell end until joint line is visible. Tighten bolts evenly maintaining approximate distance between gland and face of flange at all points around the socket. Do not exceed pipe manufacturer's specifications for maximum torque applied to bolts.
 4. Flanged Joints: Make ductile iron and steel pipe joints faced true, fitted with gaskets, and drawn up square and tight to ensure full gasket flow and satisfactory seal.
 5. Welded Joints: Responsibility for quality of welding, competency of welding operators and their ability to make sound welds rests with the Contractor. Technique of welding employed, appearance and quality of welds made and methods used in correcting defective work shall conform to requirements of ANSI B31.1 and its Supplements.
 6. Rubber Gasket Joints: Make reinforced concrete pipe rubber gasket joints in accordance with pipe manufacturer's written instructions. In addition, fill annular space remaining in the interior and exterior pipe joint with Joint Filler Material.
 - a. Make joints in accordance with requirements of AWWA C302 and as specified herein.
 - b. In addition to rubber gasket joint seal in rubber and steel joints, fill remaining annular space of pipe joint interior and exterior using Joint Filler Material. Apply Joint Filler Material in strict accordance with manufacturer's written instructions. Remove excess filler material from pipe interior and trowel joint interior surface to produce a continuous smooth surface across the joint.
 7. Compression Joints: Cut the pipe or tubing to length and remove all burrs. Slip the compression nut and the compression ring over the end of the tube. Insert the tube end and compression ring into the fitting and tighten the compression nut down over the ring onto the fitting. Hold both parts of the joint with wrenches while tightening. Do not over tighten.

3.03 FIELD QUALITY CONTROL

- A. General Requirements: Conduct tests specified herein so that each pipe line installed in the Project is tested to the Engineer's satisfaction.
 1. Provide tools, materials (including water), apparatus and instruments necessary for pipeline testing.
 2. Conduct tests of every kind in the presence of and to the satisfaction of the Engineer.
 3. Remove testing equipment at completion of testing.

END OF SECTION 153700

**COMMONWEALTH OF PENNSYLVANIA
COMMONWEALTH FINANCING AUTHORITY**

H20 PA GRANT AGREEMENT

This Contract, entered into by and between the Commonwealth of Pennsylvania (the "Commonwealth"), acting through the Commonwealth Financing Authority (the "Grantor" or "Authority"), and

**CITY OF READING
815 Washington St.
Reading, PA 19601-3615**

(the "Grantee").

BACKGROUND:

Section 502 of the Act of July 9, 2008, known as the H20 PA Act, authorizes the Commonwealth Finance Authority to award grants to eligible applicants for eligible applicant owned water or sewer projects, flood control projects, or high hazard unsafe dam repair or rehabilitation projects.

The General Assembly of the Commonwealth has appropriated funds to the Grantor to carry out the provisions of the Act.

NOW, THEREFORE, in consideration of the foregoing, and subject to the conditions contained herein, the parties hereto intending to be legally bound hereby, do covenant and agree for themselves, their respective successors and assignees as follows:

**ARTICLE I
AMOUNT OF THE CONTRACT**

Subject to the terms of this Grant, the Grantor hereby makes available to the Grantee out of funds appropriated a grant in the sum of **ONE MILLION DOLLARS (\$1,000,000.00) AND NO CENTS-----** or such portion thereof as may be required by the Grantee and authorized by the Grantor, subject to the condition that it shall be used by the Grantee to carry out the activities described in the application submitted by the Grantee and as approved by the Grantor, and which is incorporated herein by reference. In addition, this Grant shall be subject to Appendix A, Project Description and Special Conditions, and Appendix B, Budget Summary, which are attached hereto and incorporated herein.

**ARTICLE II
EFFECTIVE DATES**

The term of this Grant shall commence on the Effective Date (as defined below) and shall end on **JUNE 30, 2013**, subject to the other provisions of this Grant.

The Effective Date shall be the date the fully executed Grant is sent to the Grantee. A fully executed contract is one that has been signed by the Grantee and by the Grantor and contains all approvals required by Commonwealth contracting procedures.

This Grant is not binding in any way, nor will the Commonwealth be bound, until this document has been fully executed and sent to the Grantee. Any cost incurred by the Grantee prior thereto are incurred at the Grantee's risk.

**ARTICLE III
PAYMENT PROVISIONS AND FISCAL RESPONSIBILITIES**

(a) The Grantor agrees to pay the Grantee for eligible project costs incurred under this Grant between **MAY 5, 2011** and **JUNE 30, 2013** (the "Grant Activity Period") as follows:

- (1) Subject to the availability of state funds and other terms and conditions of this Grant, the Grantor will reimburse the Grantee based upon the Grantor's determination of the Grantee's needs and in accordance with the proposed budget as set forth in Appendix B.

The Grantor may pay the Grantee for eligible project costs at intervals to be determined by the Grantor. Under no circumstances shall the Commonwealth or the Grantor be liable for any expenditure exceeding the amount stated in this Grant or amendments hereto.

The Grantor shall have the right to disapprove any expenditure made by the Grantee which is not in accordance with the terms of this Grant and the Grantor may adjust payment to the Grantee accordingly.

- (2) Initial payments to the Grantee to perform the activities under this Grant and all other payments shall be made on invoice forms and in accordance with instructions provided by the Grantor.

To receive payments under this Grant, the Grantee shall submit requests for payment based on the Grantee's estimate of expenditures, at intervals as determined by the Grantee to meet disbursement needs. Unless otherwise instructed by the Grantor, this estimate may not exceed the current disbursement needs of the Grantee in order that the amount of cash on hand and available to the Grantee is as close to daily needs as administratively feasible. The Grantor may, however, set a minimum payment level or amount for each request for payment.

(b) Conditions for Payment:

- (1) Grant payments under this Grant shall be conditioned upon the completion of any Special Conditions set forth in Appendix A or otherwise incorporated into this Grant.
- (2) Costs allocated to program administration shall be limited to those set forth in the project budget or as otherwise revised in accordance with the amendment provisions of this Grant set forth in the Article entitled Amendments and Modifications.
- (3) Payment by the Commonwealth and all other terms of this Grant are subject to the effect of any federal deficit reduction legislation upon the availability of funds awarded by this Grant.

(c) The Grantee shall charge to the project account all approved costs of the project. All such costs, including activities contributed by the Grantee or others and charged to the project account, shall be supported by properly executed vouchers or other records indicating in proper detail the nature and propriety of the charge.

(d) Conditions for Repayment of Grant Funds:

- (1) Misuse or Failure to Use Funds.
 - (A) The Grantee agrees that it will use the funds granted hereunder, or as much as may be necessary, to carry out the aforesaid project in accordance with the terms of this Grant. If after all or any part of the funds has been paid to the Grantee and the Grantee shall fail to carry out the activities, the Grantee shall repay the Grantor the funds theretofore paid.
 - (B) If the Grantee does not use all or a portion of the funds paid under the terms of this Grant for purposes of and in accordance with this Grant, the Grantee shall be liable to the Grantor for the amount of funds unused or improperly used and shall return said funds to the Grantor.
 - (C) In the event the Grantor shall be entitled to repayment of all or a portion of the funds granted herein, the repayment shall include all interest, income, accumulations and the monetary equivalent of

any appreciation in value of any property (real, personal or mixed) purchased with the funds granted them. A check shall be written, payable to the Commonwealth of Pennsylvania, and forwarded to the Grantor for: (1) the principal and (2) the total of any such interest, income, accumulations or appreciation in value.

- (2) Violation of the Prohibition of Illegal Alien Labor on Assisted Projects Act.

In the event that the Grantee

- (i) knowingly employs, or knowingly permits any of its subcontractors to knowingly employ, the labor services of an illegal alien on activities funded in whole or in part by grants or loans issued by an executive agency of the Commonwealth of Pennsylvania; and
- (ii) the Grantee or any of its subcontractors are sentenced under Federal law for an offense involving knowing use of labor by an illegal alien on activities funded in whole or in part by grants or loans issued by an executive agency of the Commonwealth of Pennsylvania,

the Grantee shall repay to the Grantor all grant funds received by the Grantee from the Grantor pursuant to this Grant. A check shall be written, payable to the Commonwealth of Pennsylvania, and forwarded to the Grantor.

ARTICLE IV BONDING, INSURANCE AND TAX LIABILITY REQUIREMENTS

- (a) Fidelity Bonding:

Unless otherwise authorized by the Grantor, the Grantee shall procure fidelity bonding for anyone authorized to sign checks, certify vouchers and/or handle or control funds, checks, securities or property. If a check signing machine is used which is not operated under the direct supervision of the authorized signer or counter-signer, the machine operator shall be bonded in the same amount as the check-signer. The amount of the bond required shall be adequate to insure the security of all funds received under this Grant as determined by the Grantor and such bond must be maintained until the Grant is closed out by the Grantor.

- (b) Hold Harmless:

The Grantee shall hold the Commonwealth harmless from and indemnify the Commonwealth against any and all claims, demands and actions based or arising out of any activities performed by the Grantee and its employees and agents under this Grant; and shall defend any and all actions brought against the Commonwealth based upon any such claims or demands. It is understood and agreed that the Grantee's standard liability insurance policies shall protect, or shall be endorsed to protect, the Commonwealth from claims of bodily injury

and/or property damage arising out of any activities performed by the Grantee or its employees or agents under this Grant, including business and non-business invitees, and their property and all other property sustaining damage as a direct or indirect result of the execution of this project when validly present on Grantee's premises whether or not actually engaged in the project at the time the claim inures. Such policies shall not include any provision limiting then existing sovereign immunity of the Commonwealth or of its agents or employees. Upon request, the Grantee shall furnish to the Grantor proof of insurance as required by this paragraph.

(c) Other Liability Requirements:

The Grantee shall provide workmen's compensation insurance where the same is required and shall accept full responsibility for the payment of premiums for workmen's compensation and social security and any other taxes or payroll deductions required by law for its employees who are performing activities specified by this Grant.

**ARTICLE V
COMPLIANCE WITH APPLICABLE STATUTES AND REGULATIONS**

All activities authorized by this Grant shall be performed in accordance with applicable statutes, regulations, conditions, directives, guidelines and such additional requirements as may be attached hereto as Appendix C or are otherwise provided by the Grantor. The Grantee acknowledges that this Grant is subject to all requirements set forth herein and further agrees that it will comply with future requirements determined by the Grantor as necessary.

(a) Compliance with State Statutes and Regulations:

The Grantee also agrees to comply with all applicable state statutes and regulations.

(b) Nondiscrimination/Sexual Harassment Provisions:

The Grantee agrees:

- (1) In the hiring of any employee(s) for the manufacture of supplies, performance of work, or any other activity required under the grant agreement or any subgrant agreement, contract, or subcontract, the Grantee, a subgrantee, a contractor, a subcontractor, or any person acting on behalf of the Grantee shall not, by reason of gender, race, creed, or color, discriminate against any citizen of this Commonwealth who is qualified and available to perform the work to which the employment relates.
- (2) The Grantee, any subgrantee, contractor or any subcontractor or any person on their behalf shall not in any manner discriminate

against or intimidate any of its employees on account of gender, race, creed, or color.

- (3) The Grantee, any subgrantee, contractor or any subcontractor shall establish and maintain a written sexual harassment policy and shall inform their employees of the policy. The policy must contain a notice that sexual harassment will not be tolerated and employees who practice it will be disciplined.
- (4) The Grantee, any subgrantee, contractor or any subcontractor shall not discriminate by reason of gender, race, creed, or color against any subgrantee, contractor, subcontractor or supplier who is qualified to perform the work to which the contracts relates.
- (5) The Grantee, any subgrantee, any contractor or any subcontractor shall, within the time periods requested by the Commonwealth, furnish all necessary employment documents and records and permit access to their books, records, and accounts by the Grantor and the Bureau of Minority and Women Business Opportunities (BMWBO), for purpose of ascertaining compliance with provisions of this Nondiscrimination/Sexual Harassment Clause. Within thirty (30) days after award of any grant, the Grantee shall be required to complete, sign and submit Form STD-21, the "Initial Contract Compliance Data" form. Grantees who have fewer than five employees or whose employees are all from the same family or who have completed the STD-21 form within the past 12 months may, within the 15 days, request an exemption from the STD-21 form from the Grantor.
- (6) The Grantee, any subgrantee, contractor or any subcontractor shall include the provisions of this Nondiscrimination/Sexual Harassment Clause in every subgrant agreement, contract or subcontract so that those provisions applicable to subgrantees, contractors or subcontractors will be binding upon each subgrantee, contractor or subcontractor.
- (7) The Commonwealth may cancel or terminate the grant agreement and all money due or to become due under the grant agreement may be forfeited for a violation of the terms and conditions of this Nondiscrimination/Sexual Harassment Clause. In addition, the Grantor may proceed with debarment or suspension and may place the Grantee, subgrantee, contractor, or subcontractor in the Contractor Responsibility File.

(c) Compliance with the State Contractor Responsibility Program:

For the purpose of these provisions, the term Contractor is defined as any person, including, but not limited to, a bidder, offeror, loan recipient, grantee, or subgrantee, who has furnished or seeks to furnish goods, supplies, services, or leased space, or who has performed or seeks to perform construction activity

under contract, subcontract, grant, or subgrant with the Commonwealth, or with a person under contract, subcontract, grant, or subgrant with the Commonwealth or its state-affiliated entities, and state-related institutions. The term Grantee may include a permittee, licensee, or any agency, political subdivision, instrumentality, public authority, or other entity of the Commonwealth.

- (1) The Grantee must certify, in writing, for itself and all its subcontractors, that as of the date of its execution of any Commonwealth contract, that neither the Grantee, nor any subcontractors, nor any suppliers are under suspension or debarment by the Commonwealth or any governmental entity, instrumentality, or authority and, if the Grantee cannot so certify, then it agrees to submit, along with the bid/proposal, a written explanation of why such certification cannot be made.
- (2) The Grantee must also certify, in writing, that as of the date of its execution, of any Commonwealth contract it has no tax liabilities or other Commonwealth obligations.
- (3) The Grantee's obligations pursuant to these provisions are ongoing from and after the effective date of the Grant through the termination date thereof. Accordingly, the Grantee shall have an obligation to inform the Grantor if, at any time during the term of the Grant, it becomes delinquent in the payment of taxes, or other Commonwealth obligations, or if it or any of its subcontractors are suspended or debarred by the Commonwealth, the federal government, or any other state or governmental entity. Such notification shall be made within 15 days of the date of suspension or debarment.
- (4) The failure of the Grantee to notify the Grantor of its suspension or debarment by the Commonwealth, any other state, or the federal government shall constitute an event of default of the Grant with the Commonwealth.
- (5) The Grantee agrees to reimburse the Commonwealth for the reasonable costs of investigation incurred by the Office of State Inspector General for investigations of the Grantee's compliance with the terms of this or any other agreement between the Grantee and the Commonwealth, which results in the suspension or debarment of the Grantee. Such costs shall include, but shall not be limited to, salaries of investigators, including overtime; travel and lodging expenses; and expert witness and documentary fees. The Grantee shall not be responsible for investigative costs for investigations that do not result in the Grantee's suspension or debarment.
- (6) The Grantee may obtain a current list of suspended and debarred Commonwealth contractors by either searching the internet at

http://www.dgsweb.state.pa.us/DebarmentList_portlet/
contacting the:

or

Department of General Services
Office of Chief Counsel
603 North Office Building
Harrisburg, PA 17125
Telephone No: (717) 783-6472
FAX No: (717) 787-9138

(d) Compliance with the Offset Provision for Commonwealth Grants:

The Grantee agrees that the Commonwealth may set off the amount of any state tax liability or other debt of the Grantee or its subsidiaries that is owed to the Commonwealth and is not being contested on appeal, against any payments due the Grantee under this or any other contract with the Commonwealth.

(e) Compliance with The Americans with Disabilities Act:

Pursuant to federal regulations promulgated under the authority of The Americans With Disabilities Act, 28 C.F.R. §35.101 et seq., the Grantee understands and agrees that no individual with a disability shall, on the basis of the disability, be excluded from participation in this Grant or from activities provided for under this Grant. As a condition of accepting and executing this Grant, the Grantee agrees to comply with the "General Prohibitions Against Discrimination," 28 C.F.R. §35.130, and all other regulations promulgated under Title II of The Americans With Disabilities Act which are applicable to the benefits, services, programs and activities provided by the Commonwealth through contracts with outside contractors.

The Grantee shall be responsible for and agrees to indemnify and hold harmless the Commonwealth from all losses, damages, expenses, claims, demands, suits and actions brought by any party against the Commonwealth as a result of the Grantee's failure to comply with the provisions of the above paragraph.

(f) Compliance with Anti-Pollution Regulations:

The Grantee and its subcontractors agree that in the performance of their obligations under this Grant they shall minimize pollution and shall strictly comply with all applicable environmental laws and regulations.

(g) Contractor Integrity Provisions:

It is essential that those who seek to contract with the Commonwealth of Pennsylvania ("Commonwealth") observe high standards of honesty and integrity. They must conduct themselves in a manner that fosters public confidence in the integrity of the Commonwealth procurement process.

In furtherance of this policy, Contractor agrees to the following:

- (1) Contractor shall maintain the highest standards of honesty and integrity during the performance of this contract and shall take no action in violation of state or federal laws or regulations or any other applicable laws or regulations, or other requirements applicable to Contractor or that govern contracting with the Commonwealth.
- (2) Contractor shall establish and implement a written business integrity policy, which includes, at a minimum, the requirements of these provisions as they relate to Contractor employee activity with the Commonwealth and Commonwealth employees, and which is distributed and made known to all Contractor employees.
- (3) Contractor, its affiliates, agents and employees shall not influence, or attempt to influence, any Commonwealth employee to breach the standards of ethical conduct for Commonwealth employees set forth in the Public Official and Employees Ethics Act, 65 Pa.C.S. §§1101 et seq.; the State Adverse Interest Act, 71 P.S. §776.1 et seq.; and the Governor's Code of Conduct, Executive Order 1980-18, 4 Pa. Code §7.151 et seq., or to breach any other state or federal law or regulation.
- (4) Contractor, its affiliates, agents and employees shall not offer, give, or agree or promise to give any gratuity to a Commonwealth official or employee or to any other person at the direction or request of any Commonwealth official or employee.
- (5) Contractor, its affiliates, agents and employees shall not offer, give, or agree or promise to give any gratuity to a Commonwealth official or employee or to any other person, the acceptance of which would violate the Governor's Code of Conduct, Executive Order 1980-18, 4 Pa. Code §7.151 et seq. or any statute, regulation, statement of policy, management directive or any other published standard of the Commonwealth.
- (6) Contractor, its affiliates, agents and employees shall not, directly or indirectly, offer, confer, or agree to confer any pecuniary benefit on anyone as consideration for the decision, opinion, recommendation, vote, other exercise of discretion, or violation of a known legal duty by any Commonwealth official or employee.
- (7) Contractor, its affiliates, agents, employees, or anyone in privity with him or her shall not accept or agree to accept from any person, any gratuity in connection with the performance of work under the contract, except as provided in the contract.
- (8) Contractor shall not have a financial interest in any other contractor, subcontractor, or supplier providing services, labor, or

material on this project, unless the financial interest is disclosed to the Commonwealth in writing and the Commonwealth consents to Contractor's financial interest prior to Commonwealth execution of the contract. Contractor shall disclose the financial interest to the Commonwealth at the time of bid or proposal submission, or if no bids or proposals are solicited, no later than Contractor's submission of the contract signed by Contractor.

- (9) Contractor, its affiliates, agents and employees shall not disclose to others any information, documents, reports, data, or records provided to, or prepared by, Contractor under this contract without the prior written approval of the Commonwealth, except as required by the *Pennsylvania Right-to-Know Law, 65 P.S. §§ 67.101-3104*, or other applicable law or as otherwise provided in this contract. Any information, documents, reports, data, or records secured by Contractor from the Commonwealth or a third party in connection with the performance of this contract shall be kept confidential unless disclosure of such information is:
- (A) Approved in writing by the Commonwealth prior to its disclosure; or
 - (B) Directed by a court or other tribunal of competent jurisdiction unless the contract requires prior Commonwealth approval; or
 - (C) Required for compliance with federal or state securities laws or the requirements of national securities exchanges; or
 - (D) Necessary for purposes of Contractor's internal assessment and review; or
 - (E) Deemed necessary by Contractor in any action to enforce the provisions of this contract or to defend or prosecute claims by or against parties other than the Commonwealth; or
 - (F) Permitted by the valid authorization of a third party to whom the information, documents, reports, data, or records pertain; or
 - (G) Otherwise required by law.
- (10) Contractor certifies that neither it nor any of its officers, directors, associates, partners, limited partners or individual owners has been officially notified of, charged with, or convicted of any of the following and agrees to immediately notify the Commonwealth agency contracting officer in writing if and when it or any officer, director, associate, partner, limited partner or individual owner has

been officially notified of, charged with, convicted of, or officially notified of a governmental determination of any of the following:

- (A) Commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property.
- (B) Commission of fraud or a criminal offense or other improper conduct or knowledge of, approval of or acquiescence in such activities by Contractor or any affiliate, officer, director, associate, partner, limited partner, individual owner, or employee or other individual or entity associated with:
 - (I) obtaining;
 - (II) attempting to obtain; or
 - (III) performing a public contract or subcontract.

Contractor's acceptance of the benefits derived from the conduct shall be deemed evidence of such knowledge, approval or acquiescence.

- (C) Violation of federal or state antitrust statutes.
- (D) Violation of any federal or state law regulating campaign contributions.
- (E) Violation of any federal or state environmental law.
- (F) Violation of any federal or state law regulating hours of labor, minimum wage standards or prevailing wage standards; discrimination in wages; or child labor violations.
- (G) Violation of the Act of June 2, 1915 (P.L.736, No. 338), known as the Workers' Compensation Act, 77 P.S. 1 et seq.
- (H) Violation of any federal or state law prohibiting discrimination in employment.
- (I) Debarment by any agency or department of the federal government or by any other state.
- (J) Any other crime involving moral turpitude or business honesty or integrity.

Contractor acknowledges that the Commonwealth may, in its sole discretion, terminate the contract for cause upon such notification or when the Commonwealth otherwise learns that Contractor has been officially notified, charged, or convicted.

- (11) If this contract was awarded to Contractor on a non-bid basis, Contractor must, (as required by *Section 1641* of the *Pennsylvania Election Code*) file a report of political contributions with the Secretary of the Commonwealth on or before February 15 of the next calendar year. The report must include an itemized list of all political contributions known to Contractor by virtue of the knowledge possessed by every officer, director, associate, partner, limited partner, or individual owner that has been made by:
- (A) Any officer, director, associate, partner, limited partner, individual owner or members of the immediate family when the contributions exceed an aggregate of one thousand dollars (\$1,000) by any individual during the preceding year; or
 - (B) Any employee or members of his immediate family whose political contribution exceeded one thousand dollars (\$1,000) during the preceding year.

To obtain a copy of the reporting form, Contractor shall contact the Bureau of Commissions, Elections and Legislation, Division of Campaign Finance and Lobbying Disclosure, Room 210, North Office Building, Harrisburg, PA 17120.

- (12) Contractor shall comply with requirements of the *Lobbying Disclosure Act, 65 Pa.C.S. § 13A01 et seq.*, and the regulations promulgated pursuant to that law. Contractor employee activities prior to or outside of formal Commonwealth procurement communication protocol are considered lobbying and subjects the Contractor employees to the registration and reporting requirements of the law. Actions by outside lobbyists on Contractor's behalf, no matter the procurement stage, are not exempt and must be reported.
- (13) When Contractor has reason to believe that any breach of ethical standards as set forth in law, the Governor's Code of Conduct, or in these provisions has occurred or may occur, including but not limited to contact by a Commonwealth officer or employee which, if acted upon, would violate such ethical standards, Contractor shall immediately notify the Commonwealth contracting officer or Commonwealth Inspector General in writing.
- (14) Contractor, by submission of its bid or proposal and/or execution of this contract and by the submission of any bills, invoices or

requests for payment pursuant to the contract, certifies and represents that it has not violated any of these contractor integrity provisions in connection with the submission of the bid or proposal, during any contract negotiations or during the term of the contract.

- (15) Contractor shall cooperate with the Office of Inspector General in its investigation of any alleged Commonwealth employee breach of ethical standards and any alleged Contractor non-compliance with these provisions. Contractor agrees to make identified Contractor employees available for interviews at reasonable times and places. Contractor, upon the inquiry or request of the Office of Inspector General, shall provide, or if appropriate, make promptly available for inspection or copying, any information of any type or form deemed relevant by the Inspector General to Contractor's integrity and compliance with these provisions. Such information may include, but shall not be limited to, Contractor's business or financial records, documents or files of any type or form that refers to or concern this contract.
- (16) For violation of any of these Contractor Integrity Provisions, the Commonwealth may terminate this and any other contract with Contractor, claim liquidated damages in an amount equal to the value of anything received in breach of these provisions, claim damages for all additional costs and expenses incurred in obtaining another contractor to complete performance under this contract, and debar and suspend Contractor from doing business with the Commonwealth. These rights and remedies are cumulative, and the use or non-use of any one shall not preclude the use of all or any other. These rights and remedies are in addition to those the Commonwealth may have under law, statute, regulation, or otherwise.
- (17) For purposes of these Contractor Integrity Provisions, the following terms shall have the meanings found in this Paragraph 17.
 - (A) "Confidential information" means information that a) is not already in the public domain; b) is not available to the public upon request; c) is not or does not become generally known to Contractor from a third party without an obligation to maintain its confidentiality; d) has not become generally known to the public through a act or omission of Contractor; or e) has not been independently developed by Contractor without the use of confidential information of the Commonwealth.
 - (B) "Consent" means written permission signed by a duly authorized officer or employee of the Commonwealth, provided that where the material facts have been

disclosed, in writing, by pre-qualification, bid, proposal, or contractual terms, the Commonwealth shall be deemed to have consented by virtue of execution of this contract.

- (C) "Contractor" means the individual or entity that has entered into this contract with the Commonwealth, including those directors, officers, partners, managers, and owners having more than a five percent interest in Contractor.
 - (D) "Financial interest" means:
 - (I) Ownership of more than a five percent interest in any business; or
 - (II) Holding a position as an officer, director, trustee, partner, employee, or holding any position of management.
 - (E) "Gratuity" means tendering, giving or providing anything of more than nominal monetary value including, but not limited to, cash, travel, entertainment, gifts, meals, lodging, loans, subscriptions, advances, deposits of money, services, employment, or contracts of any kind. The exceptions set forth in the Governor's Code of Conduct, Executive Order 1980-18, the 4 Pa. Code §7.153(b), shall apply.
 - (F) "Immediate family" means a spouse and any unemancipated child.
 - (G) "Non-bid basis" means a contract awarded or executed by the Commonwealth with Contractor without seeking bids or proposals from any other potential bidder or offeror.
 - (H) "Political contribution" means any payment, gift, subscription, assessment, contract, payment for services, dues, loan, forbearance, advance or deposit of money or any valuable thing, to a candidate for public office or to a political committee, including but not limited to a political action committee, made for the purpose of influencing any election in the Commonwealth of Pennsylvania or for paying debts incurred by or for a candidate or committee before or after any election.
- (h) Compliance with the Prohibition of Illegal Alien Labor on Assisted Projects Act.

Pursuant to the Act of May 11, 2006 (P.L. 173, No. 43), known as the Prohibition of Illegal Alien Labor on Assisted Projects Act, the Grantee shall not knowingly employ, or knowingly permit any of its subcontractors to knowingly employ, the

labor services of an illegal alien on activities funded in whole or in part by a grant or loan issued by an executive agency of the Commonwealth of Pennsylvania.

In the event that the Grantee

- (a) knowingly employs, or knowingly permits any of its subcontractors to knowingly employ, the labor services of an illegal alien on activities funded in whole or in part by grants or loans issued by an executive agency of the Commonwealth of Pennsylvania; and
- (b) the Grantee or any of its subcontractors are sentenced under Federal law for an offense involving knowing use of labor by an illegal alien on activities funded in whole or in part by grants or loans issued by an executive agency of the Commonwealth of Pennsylvania,

the Grantee shall:

- (a) repay to the Grantor all grant funds received by the Grantee from the Grantor pursuant to this Grant, and
- (b) be ineligible to apply for any Commonwealth grant or loan for a period of two years.

(i) Right to Know Law Provisions

- (1) The Grantee or Subgrantee understands that the Grant Agreement and records related to or arising out of the Grant Agreement are subject to requests made pursuant to the Pennsylvania Right-to-Know Law, 65 P.S. §§ 67.101-3104, ("RTKL"). For the purpose of these provisions, the term "the Commonwealth" shall refer to the Commonwealth Financing Authority.
- (2) If the Commonwealth needs the Grantee's or Subgrantee's assistance in any matter arising out of the RTKL related to this Grant Agreement, it shall notify the Grantee or Subgrantee using the legal contact information provided in the Grant Agreement. The Grantee or Subgrantee, at any time, may designate a different contact for such purpose upon reasonable prior written notice to the Commonwealth.
- (3) Upon written notification from the Commonwealth that it requires Grantee's or Subgrantee's assistance in responding to a request under the RTKL for information related to this Grant Agreement that may be in Grantee's or Subgrantee's possession, constituting, or alleged to constitute, a public record in accordance with the RTKL ("Requested Information"), Grantee or Subgrantee shall:
 - (A) Provide the Commonwealth, within ten (10) calendar days after receipt of written notification, access to, and copies of, any document or information in Grantee's or

Subgrantee's possession arising out of this Grant Agreement that the Commonwealth reasonably believes is Requested Information and may be a public record under the RTKL; and

- (B) Provide such other assistance as the Commonwealth may reasonably request, in order to comply with the RTKL with respect to this Grant Agreement.
- (4) If Grantee or Subgrantee considers the Requested Information to include a request for a Trade Secret or Confidential Proprietary Information, as those terms are defined by the RTKL, or other information that Grantee or Subgrantee considers exempt from production under the RTKL, Grantee or Subgrantee must notify the Commonwealth and provide, within seven (7) calendar days of receiving the written notification, a written statement signed by a representative of Grantee or Subgrantee explaining why the requested material is exempt from public disclosure under the RTKL.
- (5) The Commonwealth will rely upon the written statement from Grantee or Subgrantee in denying a RTKL request for the Requested Information unless the Commonwealth determines that the Requested Information is clearly not protected from disclosure under the RTKL. Should the Commonwealth determine that the Requested Information is clearly not exempt from disclosure, Grantee or Subgrantee shall provide the Requested Information within five (5) business days of receipt of written notification of the Commonwealth's determination.
- (6) If Grantee or Subgrantee fails to provide the Requested Information within the time period required by these provisions, Grantee or Subgrantee shall indemnify and hold the Commonwealth harmless for any damages, penalties, costs, detriment or harm that the Commonwealth may incur as a result of Grantee's or Subgrantee's failure, including any statutory damages assessed against the Commonwealth.
- (7) The Commonwealth will reimburse Grantee or Subgrantee for any costs associated with complying with these provisions only to the extent allowed under the fee schedule established by the office of Open Records or as otherwise provided by the RTKL if the fee schedule is inapplicable.
- (8) Grantee or Subgrantee may file a legal challenge to any Commonwealth decision to release a record to the public with the Office of Open Records, or in the Pennsylvania Courts, however, Grantee or Subgrantee shall indemnify the Commonwealth for any legal expenses incurred by the Commonwealth as a result of such a challenge and shall hold the Commonwealth harmless for any damages, penalties, costs, detriment or harm that the Commonwealth may incur as a result of Grantee's or Subgrantee's failure, including any statutory damages assessed against the Commonwealth, regardless of the outcome of such legal challenge. As between the parties, Grantee or Subgrantee agrees to waive all rights

or remedies that may be available to it as a result of the Commonwealth's disclosure of Requested Information pursuant to the RTKL.

- (9) The Grantee's or Subgrantee's duties relating to the RTKL are continuing duties that survive the expiration of this Grant Agreement and shall continue as long as the Grantee or Subgrantee has Requested Information in its possession.

ARTICLE VI ASSIGNMENT, TRANSFER, COLLATERAL USE

This Grant shall be binding upon and inure to the benefit of the Grantor, the Grantee, and their respective successors and assigns, except that the Grantee may not assign or transfer its rights hereunder without the prior written consent of the Grantor. Approval of an assignment does not establish any legal relationship between the Commonwealth or the Grantor and any other third party, and under no circumstances shall the Commonwealth be held liable for any act or omission committed pursuant to such an assignment.

ARTICLE VII INDEPENDENT CONTRACTOR

Notwithstanding anything contained herein to the contrary, the rights and duties hereby granted to and assumed by the Grantee are those of an independent contractor only. Nothing contained herein shall be so construed as to create an employment, agency or partnership relationship between the Grantor and the Grantee.

ARTICLE VIII INTEREST OF PARTIES AND OTHERS

No officer, member, employee, independent contractor or elected official of the Authority and no member of its governing body who exercises any functions or responsibilities in the review or approval of activities being performed under this Grant shall participate in any decision relating to this Grant which affects his/her personal interest or the interest of any corporation, partnership or association in which he/she is directly or indirectly interested. Nor shall any such officer, member, elected official or employee of the Commonwealth or any member of its governing body have any interest direct or indirect in this Grant or the proceeds thereof.

The Grantee covenants that the Grantee (including directors, officers, members and employees of the Grantee) presently has no interest and shall not acquire any interest, directly or indirectly, which would conflict in any manner or degree with the performance of activities required to be performed under this Grant. The Grantee further covenants that no person having any such interest shall be employed in the performance of activities for this Grant.

The Grantee represents and warrants that no elected state official or any employee of the Grantor or a member of such elected state official's or the Grantor's employee's immediate family (parent, spouse, domestic partner, child, brother or sister, daughter-in-law or son-in-law, or grandchild), or any entity in which any such person

shall have an ownership interest of 5% or greater, or in which entity such person shall have a controlling interest, has received or will receive a direct or indirect pecuniary benefit from or as a result of the full execution of this Grant. Further, the Grantee represents and warrants that it has not and will not enter into any contract for goods or services with the persons enumerated above using any funds made available to Grantee under this Grant.

ARTICLE IX SUBCONTRACTS

The Grantee shall not execute or concur in any subcontract with any person or entity in any respect concerning the activities herein without prior written approval of the Grantor. Such prior written approval shall not be required for the purchase by the Grantee of articles, supplies, equipment and activities which are both necessary for and merely incidental to the performance of the work required under this Grant. The Grantee shall not execute or concur in any subcontract declared disapproved by the Grantor. A subcontractor shall be automatically disapproved, without a declaration from the Grantor, if the subcontractor is currently or becomes suspended or debarred by the Commonwealth or the federal government. In any event, the Grantee shall be responsible for the quantity and quality of the performance of any of its subcontracts.

All subcontracts must contain provisions of nondiscrimination/sexual harassment as specified in the Article entitled Compliance with Applicable Statutes and Regulations, subsection (b). In addition, all subcontracts involving the pass through of Grant funds to subrecipients must include the audit requirements contained in the Article entitled Grant Audit and Closeout Requirements. The Grantee is responsible for ensuring that all required audits of subcontractors are performed, and for resolving any findings contained in the audit reports. All costs deemed unallowable in the subcontract audit report are required to be returned to the Grantor, through the Grantee.

ARTICLE X BIDDING REQUIREMENTS

If the Grantee is a political subdivision or other entity for which open and competitive bidding procedures have been established by law, the Grantee shall comply with those procedures if they are applicable to the project being funded with the grant funds. Otherwise, the Grantee shall comply with open and competitive bidding procedures in awarding any and all grants, subgrants, contracts, subcontracts or other agreements in excess of \$10,000.00 for construction, reconstruction, demolition, alteration and/or repair, for acquisition of machinery and equipment, or for engagement of the services of a professional consultant, when said grants, subgrants, contracts, subcontracts or other agreements are funded in whole or at least 50% in part with funds made available under this Grant. The Grantor may require the Grantee to submit proof of compliance with said procedures, and failure to provide such proof to the satisfaction of the Grantor may result in termination of the Grant and repayment of all or a portion of the funds available under this Grant. Upon written request and for good cause shown, the Grantor may, at the Grantor's sole discretion, permit the Grantee to use an alternative procedure for solicitation of bids not inconsistent with law.

ARTICLE XI RECORDS

The Grantee, using accepted procedures, shall maintain at its principal office or place of business complete and accurate records and accounts including documents, correspondence and other evidence pertaining to costs and expenses of this Grant, and reflecting all matters and activities covered by this Grant.

At any time during normal business hours and as often as the Grantor deems necessary, the Grantee shall make available for inspection by the Grantor, the Commonwealth Auditor General, the Commonwealth Attorney General, or the Comptroller General of the United States, or their duly authorized representative, all of its records with respect to all matters covered by this Grant and will permit the Grantor to audit, examine and make copies of such records.

All required records shall be maintained by the Grantee for a period of five (5) years from the date of final audit or close out of this Grant by the Grantor, except in those cases where unresolved audit questions may require maintaining some or all records for a longer period. In such event, records shall be maintained until all pending matters are resolved.

ARTICLE XII PROGRESS REPORTS

The Grantee and its subcontractors shall furnish to the Grantor such progress reports in such form and quantity as the Grantor may from time to time require, including, but not limited to, status reports of the project, project account statements, certificates, approvals, proposed budgets, invoices, copies of all contracts executed and proposed, employment placements, follow-up reports and any and all other information relative to the Grant as may be requested. The Grantor or its representative shall have the right to make reasonable inspections to monitor the Grantee's performance under this Grant.

In the event that the Grantor determines that the Grantee or its subcontractor(s) has not furnished such reports as required by the Grantor, the Grantor, by giving written notice to the Grantee, may suspend payments under this Grant until such time as the required reports are submitted.

ARTICLE XIII ACKNOWLEDGMENT OF COMMONWEALTH ASSISTANCE

Any publication concerning a project financed by the Grantor will acknowledge Commonwealth financial assistance as follows:

"This Project was financed *[in part]* by a grant
from the Commonwealth of Pennsylvania, Commonwealth Financing Authority."

Signs acknowledging said Commonwealth financial assistance or administrative participation will be erected in the project area as soon as possible after the effective date of this Grant. Acknowledgment of Commonwealth financial assistance may be

combined with acknowledgment of other funding sources on project signs or in project publications.

ARTICLE XIV CONTRACT AUDIT AND CLOSEOUT REQUIREMENTS

This Grant is funded entirely with state funds. If the amount of the Grant is less than \$100,000.00 the Grantee is exempt from all audit requirements and should refer to the procedures issued by the Grantor for instructions on closeout of this Grant.

If the amount of the Grant is \$100,000.00 or more, a final audit of the entire Grant (Project Audit) is required by the Grantor within 120 days after the termination of project activities but no later than 120 days after the Grant termination date. This audit is the responsibility of the Grantee. Audits performed under the Single Audit Act of 1984 will not be accepted in lieu of a Project Audit required under this Grant.

The Project Audit must be performed by a certified public accountant. The Grantee is responsible for securing a qualified auditor, however, the Grantor reserves the right of selection or prior approval of the independent auditor to perform the audit. The Project Audit must be a financial audit conducted in accordance with the provisions of the U.S. General Accounting Office's Government Auditing Standards, current revision, and contain all the requirements detailed in the Grantor's "Procedures for Closeout of Grants." Unless otherwise authorized by the Grantor, the audit must include those funds received under this Grant as well as any required private match funds and encompass the entire Grant Activity Period. Other grant periods may also be specified at the discretion of the Grantor and the Grantor reserves the right to designate additional compliance factors for state financial assistance programs.

The Grantor will determine any overpayment or underpayment and any additional auditing deemed necessary and inform the Grantee of the settlement amount.

The Grantee agrees that if the final audit of the Grant as accepted by the Grantor or any duly authorized representative discloses that the full amount of the Grant was not required to complete the project or that funds were improperly used, then the funds unused, improperly used or expended but not required to complete the project, shall be repaid to the Grantor with interest unless otherwise directed in writing by the Grantor.

The Commonwealth reserves the right for state agencies or their authorized representative to perform additional audits of a financial or performance nature if deemed necessary. Any such additional audit work will rely on work already performed by the Grantee's auditor, and the costs for any additional work performed by the state or federal agencies will be borne by those agencies at no additional expense to the Grantee.

All terms and conditions of this Grant will remain in effect and be binding upon the parties thereto until a final audit is submitted and accepted by the Grantor.

None of the above provisions under this article exempts the Grantee from maintaining records of state financial assistance programs or providing upon request, access to such records to the Grantor or its authorized representatives.

The submission of a Single Audit in accordance with the Single Audit Act and related Circulars does not exempt the Grantee from complying with all Project Audit and any closeout procedures as may be issued by the Grantor, including, but not limited to, the submission of a financial statement of the project after termination of project activities.

For additional information on audit and general closeout requirements, the Grantee should refer to the procedures for closeout of contracts issued by the Grantor.

ARTICLE XV TEMPORARY SUSPENSION OF THE CONTRACT

Upon written notice and at any time during the period covered under this Grant, the Grantor may suspend payments and/or request suspension of all or any part of the Grant activities. The Grantor may give such notice to suspend for the following reasons:

- (a) Violations of laws and regulations, audit exceptions, misuse of funds, failure to submit required reports or when responsible public officials or private citizens make allegations of mismanagement, malfeasance or criminal activity.
- (b) When, in the opinion of the Grantor, the activities cannot be continued in such manner as to adequately fulfill the intent of statute or regulations due to act of God, strike or disaster.

During the term of suspension, the Grantor and Grantee shall retain and hold available any and all funds previously approved for application to the activities. During this period all such funds held by the Grantee shall be placed in an interest bearing program expenditures account. The Grantee may not expend any such funds during the period that the Grant is suspended except pursuant to order of a court of competent jurisdiction. The Grantee shall have the right to cure any default or other circumstance that is the basis for suspension of this Grant within a reasonable period of time.

This Grant is also conditioned upon complete performance by the Grantee of past agreements or contracts between the Grantor and the Grantee. Complete performance includes the Grantee's timely submission of the required final audit of past agreements or contracts to the Grantor. In the event that the Grantor determines that there has been incomplete performance of past agreements or contracts by the Grantee, the Grantor, by giving written notice to the Grantee, will suspend payments under this Grant until such time as the Grantee has fulfilled its obligations under past agreements or contracts to the satisfaction of the Grantor. When the Grantee has fulfilled its obligation under past agreements or contracts to the Grantor's satisfaction, the Grantor will resume payments under this Grant.

ARTICLE XVI TERMINATION OF THE CONTRACT

The Grantor may terminate this Grant at any time for its convenience or for any other reason if it determines that termination is in its best interests, or is otherwise

appropriate, by giving written notice to the Grantee of such termination and specifying the effective date thereof.. Termination pursuant to this section shall not be applicable to funds that the Grantee is legally or contractually obligated to pay as a result of project activities entered into prior to the date that it receives written notice of termination. All grant monies not legally or contractually obligated, plus accrued interest, shall be returned to the Grantor on or before the effective date of termination and all project records shall be made available to the Grantor.

ARTICLE XVII ENTIRE AGREEMENT

This Grant, when signed by all the parties hereto, constitutes the full and complete understanding and agreement of the parties of its express terms as provided above.

No provision of this Grant shall be construed in any manner so as to create any rights in third parties not party to this Grant. It shall be interpreted solely to define specific duties and responsibilities between the Grantor and the Grantee and shall not provide any basis for claims of any other individual, partnership, corporation, organization or municipal entity.

ARTICLE XVIII AMENDMENTS AND MODIFICATIONS

A properly executed Grant amendment is required to change the termination date of this Grant, to change the Grant Activity Period, to amend the grant amount or to make major changes in the approved program scope, objectives or methods. Such an amendment must be executed if there is a significant change in the activities to be conducted under this Grant. Other revisions to the Project Description or Budget may be made upon written approval from the Grantor after prior written request of the Grantee; provided, the request is made by the Grantee and approved by the Grantor prior to the termination or expiration of the Grant.

ARTICLE XIX SEVERABILITY

Should any section or any part of any section of this Grant be rendered void, invalid or unenforceable by any court of law, for any reason, such a determination shall not render void, invalid, or unenforceable any other section or part of any section of this Grant.

ARTICLE XX CONSTRUCTION

This Grant shall be interpreted and construed in accordance with federal law, where applicable, and with the laws of the Commonwealth. All of the terms and conditions of this Grant are expressly intended to be construed as covenants as well as conditions. The titles of the sections and subsections herein have been inserted as a matter of convenience and reference only and shall not control or affect the meaning or construction of any of the terms or provisions herein.

**ARTICLE XXI
NONWAIVER OF REMEDIES**

No delay or failure on the part of the Grantor in exercising any right, power or privilege hereunder shall affect such right, power or privilege; nor shall any single or partial exercise thereof or any abandonment, waiver, or discontinuance of steps to enforce such a right, power or privilege preclude any other or further exercise thereof, or the exercise of any other right, power or privilege. The rights and remedies of the Grantor hereunder are cumulative and concurrent and not exclusive of any rights or remedies which it might otherwise have. The Grantor shall have the right at all times to enforce the provisions of this Grant in accordance with the terms hereof notwithstanding any conduct or custom on the part of the Grantor in refraining from so doing at any time or times. The failure of the Grantor at any time or times to enforce its rights under such provisions, in accordance with the same, shall not be construed as having created a custom in any way or manner contrary to specific provisions of this Grant or as having in any way or manner modified or waived the same.

IN WITNESS WHEREOF the parties hereunto have set their hands and seals on:

WITNESS:

CITY OF READING

For Authority signatures only

Federal Identification Number 236001907

Commonwealth Financing Authority

GRANTEE: Please sign & complete at "X's" only

X By Carl E. Jozwik (Seal)
X Title MANAGING DIRECTOR
X Date 7/1/11

Steve D'Amelio 8/1/11
Executive Director Date

X By [Signature]
X Title MAYOR
X Date 7/5/11

For Commonwealth signatures only

Approved as to Legality and Form

[Signature] 7/28/11
Authority Counsel Date

[Signature] 8/5/11
Office of Attorney General Date



Commonwealth Financing Authority
Harrisburg PA, 17120

June 27, 2011

Thomas McMahon, Mayor
City of Reading
815 Washington St.
Reading, PA 19601

Re: H2O PA – Water & Sewer
Grant: \$1,000,000
Fritz Island WWTP Emergency Upgrade
Project

Dear Mr. McMahon:

I am pleased to inform the City of Reading (*the "Applicant"*) that the Commonwealth Financing Authority (*the "CFA"*), at its meeting held May 5, 2011, approved your application (*the "Application"*) for a grant in an amount up to ONE MILLION DOLLARS (\$1,000,000) (*the "Grant"*). The Application has been approved based upon and in accordance with the terms and the representations made therein and in no event will the grant amount exceed 66% of the total project cost.

The grant will be used by the Applicant for digester improvements and an emergency generator, to include project construction, engineering, inspection and administration (*the "Project"*) at the property located in Reading City, Berks County, Pennsylvania. The following conditions shall apply to the Grant award:

1. Receipt by the CFA from the Applicant of all executed contracts for all Project-related work to be performed to ensure that all such contracts contain the nondiscrimination/sexual harassment provision enclosed as Exhibit A, comport with the Pennsylvania Prevailing Wage Act, where applicable, and the competitive bidding requirements, where applicable. All contracts must also contain a certificate of insurance, and performance and payment bonds.
2. Receipt by the CFA of satisfactory evidence that all taxes and other monies due and owing to the Commonwealth of Pennsylvania are paid current, unless any of said taxes or other payments are being contested, in which case, the CFA may require that funds be escrowed to pay said taxes or other payments in the event of any adverse decision.
3. Compliance with H2O PA guidelines.

APPENDIX A & B

Contract # 1000051468

Page 1 of 4

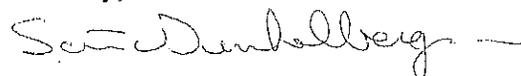
4. The Applicant must comply with all applicable federal, state and local laws and regulations dealing with bidding and procurement with regards to work that will be conducted with H2O PA funds.
5. The CFA reserves the right to approve or reject contracts between the applicant and consultants or contractors for work that will be paid for with H2O PA funds.
6. The Applicant may not make or authorize any substantial change in an approved project without first obtaining the consent of the CFA in writing.
7. The Applicant will maintain full and accurate records with respect to the project. The CFA shall have free access to such records and to inspect all project work, and other relative data and records. The Applicant must furnish upon request of the CFA all data, reports, contracts, documents, and other information relevant to the project as may be requested.
8. The Applicant will be required to submit a copy of any reports prepared with the assistance of Grant funds to the CFA before final payment of the Grant is made.
9. The Project must be completed prior to June 30, 2013.
10. This commitment is contingent upon the availability of funds for the H2O PA Program established under the Act of July 9, 2008 (P.L. __, No. 63) (32 P.S. §694.101 et. seq.), known as the H2O PA Act, and upon the balance of the financing being finalized as outlined in your application.

Exhibit B further describes the procedure to access the H2O PA grant funds after all of the necessary conditions are met.

This commitment will expire sixty (60) days from the date of this letter unless we have received your written acceptance by returning the original commitment letter fully executed. Our receipt of the signed commitment letter will constitute your authorization to incur costs for reimbursement.

If you should have any questions regarding this Grant, please contact the Center for Business Financing, Site Development Division at (717) 787-7120. The signed commitment letter should be returned to Matthew Karnell, Director, CFA Programs Division, Center for Business Financing, 400 North Street, 4th Floor, Commonwealth Keystone Building, Harrisburg, PA 17120.

Sincerely,



Scott D. Dunkelberger
Executive Director

APPENDIX A & B

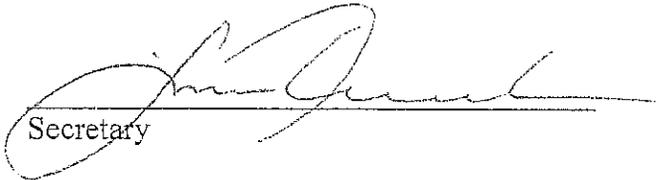
Contract # 1000051467

Page 2 of 6

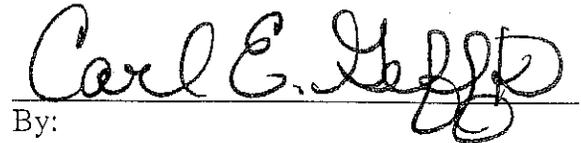
The foregoing terms and conditions are hereby agreed to and accepted this 8th day
of JULY, 2011.

ATTEST:

CITY OF READING


Secretary

(SEAL)


By:

FEDERAL TAX IDENTIFICATION NUMBER

23-6001907

APPENDIX A d d

Contract # 1000051467

Page 3 of 6

EXHIBIT A

NONDISCRIMINATION/SEXUAL HARASSMENT CLAUSE

During the term of the Contract, Grant Applicant (known herein as "Grantee") agrees as follows:

1. In the hiring of any employee(s) for the manufacture of supplies, performance of work, or any other activity required under the grant agreement or any subgrant agreement, contract, or subcontract, the Grantee, a subgrantee, a contractor, a subcontractor, or any person acting on behalf of the Grantee shall not, by reason of gender, race, creed, or color, discriminate against any citizen of this Commonwealth who is qualified and available to perform the work to which the employment relates.
2. The Grantee, any subgrantee, contractor or any subcontractor or any person on their behalf shall not in any manner discriminate against or intimidate any of its employees on account of gender, race, creed, or color.
3. The Grantee, any subgrantee, contractor or any subcontractor shall establish and maintain a written sexual harassment policy and shall inform their employees of the policy. The policy must contain a notice that sexual harassment will not be tolerated and employees who practice it will be disciplined.
4. The Grantee, any subgrantee, contractor or any subcontractor shall not discriminate by reason of gender, race, creed, or color against any subgrantee, contractor, subcontractor or supplier who is qualified to perform the work to which the contracts relates.
5. The Grantee, any subgrantee, any contractor or any subcontractor shall, within the time periods requested by the Commonwealth, furnish all necessary employment documents and records and permit access to their books, records, and accounts by the granting agency and the Bureau of Minority and Women Business Opportunities (BMWBO), for purpose of ascertaining compliance with provisions of this Nondiscrimination/Sexual Harassment Clause. Within thirty (30) days after award of any grant, the Grantee shall be required to complete, sign and submit Form STD-21, the "Initial Contract Compliance Data" form. Grantees who have fewer than five employees or whose employees are all from the same family or who have completed the STD-21 form within the past 12 months may, within the 15 days, request an exemption from the STD-21 form from the granting agency.
6. The Grantee, any subgrantee, contractor or any subcontractor shall include the provisions of this Nondiscrimination/Sexual Harassment Clause in every subgrant agreement, contract or subcontract so that those provisions applicable to subgrantees, contractors or subcontractors will be binding upon each subgrantee, contractor or subcontractor.
7. The Commonwealth may cancel or terminate the grant agreement and all money due or to become due under the grant agreement may be forfeited for a violation of the terms and conditions of this Nondiscrimination/Sexual Harassment Clause. In addition, the granting agency may proceed with debarment or suspension and may place the Grantee, subgrantee, contractor, or subcontractor in the Contractor Responsibility File.

APPENDIX A & D

Contract # C000051467

Page 4 of 6

EXHIBIT B

H2O PA

INSTRUCTIONS FOR RECEIVING GRANT FUNDS

The grant award is contingent upon receipt and execution of documents as stated in this letter. Failure to accomplish this may result in the rescindment of your Grant, as required by applicable law. Listed below are the steps you must follow.

GRANT AGREEMENT

Once the Grant Agreement is mailed out, please sign the Grant Agreement and return it as instructed in the grant cover letter. The signature process requires approximately 45 days. One fully executed copy of the grant agreement will be returned to you with a copy of a payment request form for requesting payment.

Payment of Funds

Submit to the CFA all executed construction contracts, which must include the nondiscrimination/sexual harassment provision as set forth in the Grant Agreement and any other documents required in the Grant Award Letter.

Where applicable, comply with the Pennsylvania Prevailing Wage Act which requires that the specifications for every contract for public work to which a public body is a party contain a provision that the prevailing wage rate be paid to workmen employed in the performance of the contract.

The Applicant agrees to provide general liability, property damage and workmen's compensation insurance, against any and all claims arising out of the activities undertaken pursuant to the grant which are to any extent financed by the funds from this Grant. The Applicant agrees to maintain such insurance and to name the CFA as an additional insured on such policies of insurance. Further, the Applicant agrees to notify the CFA of any change or cancellation of such insurance policies.

When you have submitted the required documents to this office, complete the payment request form following the sample provided and return it to this office. The payment request will take from 2-3 weeks to process.

APPENDIX A & B

Contract # 1000051467

Page 5 of 6

PAYMENT REQUESTS

The CFA requires the applicant to provide completed payment request forms and accompanying invoices verifying the costs incurred for the Project.

The Applicant may begin requesting reimbursement of any eligible costs after the receipt of the fully executed Grant Agreement.

The Applicant should continue to submit payment requests. Each subsequent payment request must be accompanied by invoices verifying costs incurred. Final invoices must be submitted following the completion of the Project for **costs incurred prior to June 30, 2013. Costs incurred after June 30, 2013, are not eligible for reimbursement.**

The following are the procedures for submitting payment requests:

Step One

Prepare payment request form for submission to the CFA. To determine eligible costs, refer to the H2O PA Guidelines.

Step Two

Attach copies of all supporting invoices for costs listed on the payment request form. Invoices must be marked "Paid" or "Incurred."

NOTE: Fees for securing other financing, as well as interest charges on borrowed funds, are not eligible for reimbursement.

FINAL INSTRUCTIONS

All payment requests and invoices must be submitted no later than August 1, 2013.

Should you have any questions, do not hesitate to contact:

Pennsylvania Department of Community
and Economic Development
Center for Business Financing
400 North Street – 4th Floor
Harrisburg, Pennsylvania 17120
(717) 787-7120

APPENDIX A & B

Contract # CC00051467

Page 6 of 6